Marell Inspection Services, Inc.

Inspection and Consultation

6114 La Salle Avenue, #492
Oakland CA 94611
510-338-0234

Confidential Inspection Report

1221 Any Avenue
Oakland, CA 94610

September 11, 2014

Prepared for: Mr. & Mrs. Homeowner

Client Represented by: Real Estate Agent from Real Estate Office

Table of Contents

NOTES

General Information

1.1 Orientation

For purposes of identification and reporting, we will describe the locations for this property, as left, right, front, or rear, while viewing the building from the main entry door.

1.2 Permits

Our inspection does not determine if all necessary permits were obtained, building department inspections performed, and final signatures received. This information is available from the local building department and authority having jurisdiction.

Interior

1.3 Exclusions

The master bathroom shower has a steam unit. Inspection of steam units is beyond the scope of our service. No representations or warranties are intended regarding the existing or possible future condition of the steam unit. If inspection is desired, we recommend you retain the services of a steam unit specialist.

Client & Site Information:

1.4 Inspection Date:

September 11, 2014 9:00 AM.

1.5 Client:

Bill Wong
C/O Pacific Union Real Estate
1900 Mountain Boulevard
Oakland, CA 94611.

1.6 Inspection Site:

68 Wyngaard Avenue
Oakland, CA 94611

1.7 Building Occupied?

No, it was vacant.

1.8 Who Was Present During Inspection:

The inspector was alone.

Building Details:

1.9 Estimated Date of Construction:

1996.

1.10 Building Type:

Single family residence.

Utilities:

1.11 Domestic Water Source:

Public.

1.12 Sewage Disposal:

Public.

1.13 Utilities Status:

All utilities on.

SCOPE OF SERVICE

We inspect the readily accessible major structural components and mechanical systems for excessive and unusual wear and general state of repair. Our inspection is performed in accordance with the Standards of Practice of the American Society of Home Inspectors®. A copy of these standards is available upon request. Our observations and recommendations are not intended as criticisms of the building, but as professional opinions regarding conditions observed during our site visit. Our commentary is neither a guarantee of future performance nor a prediction of service life. Photographs may be included in the inspection report, which serve to illustrate some of the Noted Conditions observed during our site visit. Not every Noted Condition or every instance of every Noted Condition is photographed.

We do not warrant the legal use of this building. This information would have to be obtained from the local building and/or zoning department.

We do not inspect properties for code violations. Building codes change, are highly interpretive, are unevenly enforced, set minimum standards, and are never retroactive. If you need to know if this property is "up to code" and/or has any "code violations", we recommend you contact the authority having jurisdiction.

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 our inspection. We recommend the client or their representatives obtain a copy of all appropriate public records and review them carefully prior to the removal of your inspection contingency.

We are not a licensed pest control company and by law are not allowed to identify the infestation of wood-destroying pest or the infection of wood-destroying organisms. The observations and recommendations in our inspection report are not a substitute for inspection by a California licensed structural pest control field representative. We recommend your carefully review this property's current (as defined by the California Structural Pest Control Act) written pest control inspection report for information and recommended remediation of all infestation and infection of wood-destroying pests and organisms. If a current written pest control inspection report is not available, we recommend that you immediately request a California licensed pest control field representative perform a structural pest control inspection.

We are often asked to prioritize corrective repairs and upgrades that appear in our report. Conditions that are a threat to health and safety, or if not attended to now could quickly worsen and cause collateral damage, and those that can affect the habitability of the property are the highest priority. Next are conditions that need repair, but are still functional. Typically these are deferred maintenance items. Last, but not least are upgrades. These are improvements that enhance the property and/or deliver an increased margin of safety. When we recommend repair or replacement, the determination of appropriate corrective action must necessarily be left to the professionals retained for detailed evaluation and repair. Lower priority conditions that are neglected may become higher priority problems. Do not equate low cost with low priority. Cost should not be the primary motivation for performing repairs and upgrades.

In this report, there may be specific references to areas and items that are inaccessible. With access and an opportunity for examination, noted conditions may be discovered. If inspection of inaccessible items is desired, this will be performed at an additional cost to the interested parties at such time as access can be provided and at a rate of $250.00 per hour.

The observations and opinions expressed within this report are those of Marell Inspection Services, Inc. and supersede any alleged verbal comments.

This report is not transferable. It is the exclusive property of the Marell Inspection Services, Inc. and the client whose name appears herewith. Its use by any unauthorized persons is strictly prohibited, and real estate agents are specifically cautioned against providing it to any unauthorized third party.

REPORT TERMINOLOGY

The following descriptions appear throughout our report

INACCESSIBLE: Any area, system, or component which is not exposed to view, is concealed, or is not accessible because of soil, walls, floors, ceilings, carpets, furnishings, storage, or any other things is considered inaccessible. With access and an opportunity for examination, noted conditions may be discovered. If inspection of inaccessible areas, systems, and components is requested, this will be performed, at an additional cost to the interested parties at such time as access is provided.

SERVICEABLE: A system or component that is functional and fit for use. Serviceable items may need periodic maintenance to maximize their useful service life and will require replacement when the reach the end of their service life.

DETERIORATED: A system or component that is worn, but still serving its intended purpose. Maintenance and or minor repair will maintain serviceability of deteriorated items and maximize their remaining service life.

FAILED OR DAMAGED: A system or component that is no longer serving its intended purpose. Failed and damaged items will need to be repaired or replaced to restore them to a serviceable condition. When we recommend repair or replacement, the determination of appropriate corrective action must necessarily be left to the licensed professionals retained.

NOTABLE CONDITION (BLUE): A statement describing a system or component that is deteriorated, damaged, or failed. A notable condition also describes a system or component that needs upgrading or improvement. Finally, a notable condition describes a system or component with very limited or no remaining service life.

ACTION ITEM (RED): Action Items are Noted Conditions discovered during our inspection that we believe are most important and should be addressed without delay. Action Items may be a threat to your health and safety, or they may be Noted Conditions that if not attended to now, could become more significant and cause collateral damage, and they can affect the habitability of the property.

INVESTIGATE FURTHER (GREEN): If our site investigation discovers evidence of hidden damage, we recommend Investigate Further. If a system or area could not be inspected because it was inaccessible we recommend Investigate Further. If we do not possess the proper training or license to identify and discuss a particular issue, we recommend Investigate Further. The interested party, at his or her own expense, must arrange all further inspections. All further inspections should be completed and studied before the expiration of any contingency period.

MONITOR (BROWN): Monitoring means keeping a system or component under systematic review in order to determine when something reaches the end of its service life.

STRUCTURE

All structures are dependent on the soil beneath them for support, but soils are not uniform. Some that might appear to be firm and solid can liquefy and become unstable during seismic activity. Also, there are soils that can expand to twice their volume with the influx of water and move structures with relative ease, raising and lowering them and fracturing slabs and other hard surfaces. In fact, expansive soils have accounted for more structural damage than most natural disasters. Regardless, foundations are not uniform, and conform to the structural standard of the year in which they were built. In accordance with our standards of practice, we identify foundation types and look for any evidence of structural deficiencies. However, cracks or deteriorated surfaces in foundations are quite common. In fact, it would be rare to find a raised foundation wall that was not cracked or deteriorated in some way, or a slab foundation that did not include some cracks concealed beneath the carpeting and padding. Fortunately, most of these cracks are related to the curing process or to common settling, including some wide ones called cold-joint separations that typically contour the footings, but others can be more structurally significant and reveal the presence of expansive soils that can predicate more or less continual movement. We will certainly alert you to any suspicious cracks if they are clearly visible. However, we are not specialists, and in the absence of any major defects we may not recommend that you consult with a foundation contractor, a structural engineer, or a geologist, but this should not deter you from seeking the opinion of any such expert.

Foundation

2.1 Foundation Type

The building is primarily supported by a perimeter poured concrete raised foundation. The interior of the building is supported by concrete foundation stem walls. A portion is constructed on concrete slab-on-grade.

2.2 Method of Evaluation

We evaluated the raised foundation by accessing the subarea and crawling through it.

2.3 Observations

The exposed and accessible foundation is generally in serviceable condition and appears capable of serving its primary function, which is to carry the building loads. However, we observed a number of conditions that are described below. There are portions of the foundation walls, which are not exposed to view. These areas are considered inaccessible. We did not observe any conditions to suggest the presence of a problem but with access and an opportunity for examination noted conditions may be discovered. If further inspection is desired this will be performed upon arrangement and at an additional cost to the interested parties at such time as access is provided.

NOTABLE CONDITION - We observed efflorescence on the foundation walls. Concrete, brick, stone, and mortar all contain mineral salts, as do the soils they routinely come in contact with. All of these porous building materials also absorb water. As water moves through the porous structure of these materials due to capillary action, it draws salt with it. This capillary pressure is relatively low-between 300 psi and 500 psi. The water makes its way to the surface of the material, evaporates, and leaves the white, powdery salt behind. The moisture that fuels this process most often comes from groundwater, but in some cases, it is caused by rain. Efflorescence alone does not pose a problem, other than an unpleasant appearance in areas of high visibility.

Slab

2.4 Method of Evaluation

We evaluated the slab foundation from the exposed and accessible interior areas and from the exterior stem walls, which project above the ground.

2.5 Observations

There is no significant cracking at the exposed exterior stem walls. The interior portion of the slab, which is also known as the slab floor, is inaccessible due to the installed floor finishes. If the finished flooring is removed, it is quite common for there to be some concrete cracking. These minor cracks are often the result

of shrinkage of materials and/or minor settlement and usually do not affect the strength of the foundation. We observed no signs of significant settlement or related interior cracking to suggest the presence of a foundation failure.

Structural Framing

2.6 Walls

The walls are conventionally framed with wooden studs. The studs are sheathed with plywood.

2.7 Floors

The floor support consists of plywood sheathing over wood joists.

2.8 Ceilings

The ceiling construction consists of standard wood joists.

2.9 Roof

The roof construction is unknown because the attic where one ordinarily can see this is inaccessible (insulation).

2.10 Subarea Framing Observations

The accessible structural framing components are in serviceable condition and are performing as would be expected for a building of this age and type of construction. There are some deviations from plumb, level, but no conditions that have any serious structural significance.

2.11 Attic Framing Observations

The attic is inaccessible and we, therefore, cannot see the type or condition of the framing. With access and an opportunity for examination noted conditions may be discovered. If further inspection is desired this will be performed upon arrangement and at an additional cost to the interested parties at such time as access is provided.

Earthquake Resistance

2.12 General Comment

INVESTIGATE FURTHER - There are no guarantees of safety during an earthquake, but both engineering and experience have demonstrated over and over that appropriately constructed or strengthened buildings are unlikely to collapse or be irreparably damaged. Earthquakes affect buildings in two ways. They shake a building, which can weaken the structure's frame and they heave the ground up, generating forces that can lift an entire building off of its foundation. Prior to 1938, the majority of homes were built to withstand only the force of gravity or load as the engineers call it. That's an up-and-down force. Unfortunately the most damaging component of earthquake forces is from side to side, producing what engineers call a lateral load. Therefore, older buildings that were adequately built to resist up and down forces can be significantly damaged under the lateral stresses of a large earthquake. Seismic upgrading (retrofitting) protects your family and safeguards your real estate investment. When dealing with conventional wood-framed buildings, there are three basic types of lateral failure, and as a consequence there are as many different needs in seismic reinforcement. Bracing against one type of lateral failure does not protect you from the other two. That's why a knowledgeable professional should plan a retrofitting scheme. A haphazard approach can leave your house just as vulnerable after reinforcement as before. Our observations and comments are not intended to take the place of a structural engineer's analysis. We recommend you retain a structural engineer to seismically evaluate this building and to recommend necessary and beneficial upgrades.

2.13 Cripple Walls

A cripple wall is a short wood-framed wall in the subarea crawl space. This wall may be anywhere from a few inches to several feet in height, running upward from the top of the concrete foundation to the bottom of the main floor. Cripple wall collapse is a main source of earthquake related failure. The collapse of this wall will often result in the main floor dropping to the ground.

The house is vaulted off to the side of the foundation as the cripple wall simply rolls out from under it. The subarea cripple walls have been retrofitted.

2.14 Holdowns

Some buildings also require additional holdown brackets to anchor the shear walls. Holdowns are specially constructed right-angle brackets connecting from the cripple wall framing into the foundation. As the bracket name implies, they are designed to resist a shear wall lifting or rolling effect, which may also occur during seismic activity. Generally, the need for holdowns is a function of the height-to-width dimensions of a shear wall configuration. Holdowns are usually installed at the ends of shear walls. They are not needed at all shear wall locations. Installation is done with an extra-long and more deeply set epoxy-anchored bolt, which provides for better resistance to the lifting stresses. If one is in doubt about the need for holdowns, there is no harm in installing them except of the added cost. However, a good understanding of shear wall mechanics is helpful in deciding whether to save the cost and work of holdown installation. Holdowns are installed, which will help prevent uplifting.

2.15 Foundation Bolting

Foundation bolting typically means that bolts are added to improve the connections between the wooden framing members of a building and its concrete foundation. Usually this means adding bolts through the piece of wood that lies flat on top of the foundation, referred to as the sill or mudsill, into the concrete. There may be no existing bolts, or the existing bolts may be either weakened or too far apart to be strong enough for earthquake resistance. Careful planning, placement and installation of foundation bolts are critical for good bolting strength. It is important to use the proper type of bolt corresponding to the existing conditions of the home and its foundation. The expected type of bolt load or stress is another important consideration for bolt selection. Not all houses have cripple walls. In many newer houses, and some older ones, the floor framing is set directly on the mudsill. Compared to houses with cripple walls, houses built in this manner are considered to be less vulnerable to displacement from their foundations. There is still significant risk, however. The connection between the floor framing and the foundations is often too weak to withstand strong seismic movement. In this case, the foundation is literally at risk of being thrust out from under the house. Regardless, the end result is the same: the house slips off its foundation. Even slippage of a few inches can do major damage to the house, allowing it to sag and cause structural damage or to sever utility connections such as gas, water, sewer and electricity which extend from the ground into the house. Current construction practice for new homes is to install steel straps in the concrete as the foundation is poured. The wet-set strapping extends upward from the foundation and is connected into either the floor or wall framing of the house, providing an anchoring method that extends well beyond simple mudsill bolting. The equivalent method of improving house anchoring in retrofitting situations is accomplished by bolting angle iron struts into the side of the concrete foundation walls, working in the crawl space areas under the main floor of the house. The angle irons extend from the foundation upward into the floor framing where they are also bolted to the floor joists. The angle iron struts are installed in such a way as to provide both a vertical (lift resisting) and lateral (slide resisting) anchor for the house. The struts reinforce any weakness in the original sill bolts and extend the anchor more completely into the house's main floor platform. Many houses, especially hillside houses, have both cripple walls and areas with the floor directly on the foundation. In this case, a combination of retrofitted improvements may be called for, including mud sill bolting, holdowns, plywood shear walls and angle iron struts.

NOTABLE CONDITION - The foundation bolting washers do not meet the latest seismic specifications recommended by many engineers and building departments. Present requirements call for 1/2 inch or 5/8 inch thick, 3 inch by 3 inch square bearing plates. Bearing plates give greater bearing surface than standard cut washers, and help distribute the load at these critical connections. We recommend removing the existing nuts and washers and installing proper bearing plates where practical as part of seismic upgrading.

2.16 Shear Transfer

Even with foundation bolting and cripple wall bracing, buildings will still be susceptible to extensive earthquake damage if the connections between the floor joists and cripple walls are not reinforced. Floor framings are oftentimes only connected to the cripple wall using a few nails. In such cases, the cripple walls

may remain intact and connected to the foundation but the whole floor of the building may slide off the cripple wall. Newly constructed buildings with no cripple walls are also at risk if the floor framing is not connected securely to the foundation. In the event of an earthquake, there is a chance that the foundation of the building will be thrust out from under the floor joists causing massive damage to the structures above it as well as severe gas, electricity and sewage connections. For older structures, shear transfer ties can be used to strengthen the floor joist-cripple wall connection. Shear transfer ties are basically pieces of steel hardware that securely connects the rim joists to the top plates of the cripple walls. Shear transfer ties are oftentimes spaced 16 inches from each other [center]. By using shear transfer ties, the strength of the crucial connection between the cripple walls and the floor framing can be substantially increased.

NOTABLE CONDITION - No shear transfer ties are present. We recommend their installation as part of seismic upgrading.

2.17 The Crawl Space

Once the perimeter of the building has been secured, the connection between the beams and posts in the middle of the floor should be retrofitted as well. The subarea posts, piers, and girders are reinforced with metal connectors. This helps strengthen the structural support system.

2.18 The Garage

The large opening of the garage door can result in the walls being too weak to withstand earthquake shaking. When the narrow sections of the wall on each side of the opening are not reinforced or braced, the weakness is worse. Many homes with this weakness have been severely damaged in past earthquakes. The solution is to install anchor bolts, tie-downs, steel straps, plywood paneling and/or a steel frame around the door opening. The wall framing is inaccessible and we are unable to determine if there is any reinforcement or if any installed reinforcement is sufficient. Destructive testing would be necessary to determine this, but is beyond the scope of our inspection.

Subarea

2.19 Access Location

The subarea access is located in the basement. There is a second access to the subarea at the left exterior of the building.

2.20 Moisture Conditions

MONITOR - The subarea was dry at the time of our site visit and we observed no moisture related structural damage to the foundation or the floor framing present to date. There will be occasional moisture in the subarea during periods of prolonged and heavy rainfall. This is quite common and does not necessarily mean that there is a drainage problem. Previous moisture has not rendered habitable space uninhabitable, caused structural damage to the foundation, or resulted in the infection of a wood-destroying organism in the floor framing or subflooring. Without one or more of these conditions, you may have a moisture condition, but we do not consider this a drainage problem. The moist prudent course of action is to monitor the subarea and retain the services of a drainage contractor for evaluation and repair, if any of these conditions develop.

2.21 Ventilation

NOTABLE CONDITION - Ventilation is minimal. Good ventilation is necessary to keep subarea moisture and humidity levels down which will help prevent wood decay. We recommend additional vents be cut in around the perimeter.

2.22 Leaks

INVESTIGATE FURTHER - We observed a puddle of water in the subarea adjacent to the outside enclosed patio. We further inspection to determine the source of the moisture and the possible need for corrective action.

Structural Pest Control Issues

2.23 Get Inspection

INVESTIGATE FURTHER - The observations and recommendations in our inspection report are not a substitute for inspection by a California licensed structural pest control field representative. We recommend your carefully review this property's current (as defined by the California Structural Pest Control Act) written pest control inspection report for information and recommended remediation of all infestation and infection of wood-destroying pests and organisms. If a current written pest control inspection report is not available, we recommend that you immediately request a California licensed pest control field representative perform a structural pest control inspection.

2.24 Wood-Destroying Pests/Organisms

NOTABLE CONDITION - There are scraps of wood and/or cardboard on the soil. The presence of this cellulose debris can result in the infection and/or infestation of wood-destroying pests and/or organisms. We recommend removal.

NOTABLE CONDITION - There is form-wood at the base of the piers and foundation walls. The presence of this material is conducive to infection and/or infestation of wood-destroying organisms and/or pests. We recommend all form-wood be treated or removed.

NOTABLE CONDITION - There is evidence commonly associated with wood-destroying pest infestation and/or organism infection at rear deck stairway. All damaged material should be replaced. This type of damage often times extends into inaccessible areas. Therefore, as this repair work begins, additional damage may be discovered. Obviously, any new damage encountered would need to be added to the scope of work and would necessarily increase the cost.

PLUMBING

Plumbing systems have common components but they are not uniform. In addition to fixtures, plumbing components consist of potable water pipes, angle stops (shut-off valves), pressure regulators, pressure relief valves, water-heating devices, drain, waste and pipes, and faucets. We do not operate angle stops because if they are not turned occasionally they can leak. We recommend, however, all angle stops be operated at least once annually. The best and most dependable water pipes are copper, because they are not subject to the build-up of minerals that bond to the inside of galvanized pipes and gradually restrict the flow of water. Once they have become bonded within the pipes, there is no remedy other than a copper re-pipe. The water pressure within pipes is commonly confused with water flow, but whereas high water flow is good high water pressure is not. In fact, whenever the street pressure exceeds eighty pounds per square inch a regulator is recommended, which comes factory preset between fifty-five pounds per square inch. Regardless of the pressure, leaks will occur in any system, and particularly in one with older galvanized pipes, and commonly when the regulator fails and high pressure begins to stress the washers and diaphragms within the various components. Waste pipes are equally varied and are comprised of older ones, such as those made of clay, or others that are made of a material like cardboard coated with tar, and modern plastic ones. Typically, the condition of these pipes is directly related to their age. ABS pipes, for instance, are virtually impervious to deterioration. However, inasmuch as most drain pipes are concealed, we can only infer their condition by observing the draw at sinks and drains. Regardless, blockages will occur at some point in the life of any system, but blockages in the main waste line can be costly, and it would be prudent to have it video scanned. This would also confirm that the house is connected to the public sewer system, which is important because they must be evaluated by a specialist.

General Conditions

3.1 Communities Requiring Sewer Lateral Tests

The United States Environmental Protection Agency (EPA) in collaboration with the California Regional Water Quality Control Board (RWQCB) is spearheading an effort to keep the San Francisco Bay clean. The EPA and the RWQCB are requiring EBMUD, six East Bay cities and one sewer district to fix old, cracked sewer pipes to ensure they don't allow the infiltration of rainwater which can overwhelm wastewater

treatment facilities, resulting in releases of partially treated sewage into the Bay and posing a threat to public health. Leaky sewer pipes are a problem for everyone, and the plan to address this concern involves all of us. EBMUD and its partners are phasing in a Regional Private Sewer Lateral (PSL) Ordinance in some east bay communities to help keep San Francisco Bay healthy. Affected property owners will be required to obtain a certificate from EBMUD indicating that their private sewer laterals (PSLs) are without defects and have proper connections. The PSL website www.eastbaypsl.com is your best resource for the most up-to-date information about the Regional PSL Program.

3.2 Utility Vault

INVESTIGATE FURTHER - A manhole (alternatively utility hole, maintenance hole or access chamber) is the top opening to an underground utility vault used to house an access point for making connections or performing maintenance on underground and buried public utility and other services including sewers, telephone, electricity, storm drains and gas. There is a manhole cover located on this property (back yard). We recommend you check the public records regarding what is present in this utility vault and who is responsible for it should any work be necessary at some point in the future.

Potable Water

3.3 Water Pressure

The system pressure, as measured at the exterior hose bibbs, is within the mid-range of normal.

3.4 Regulator

We were unable to locate a pressure regulator.

3.5 Water Flow

The flow of water is normal and we observed reasonable flow when multiple faucets were operated simultaneously.

3.6 Water Piping Type

The exposed and accessible water supply piping is copper with some PVC plastic.

3.7 Water Piping Observations

The visible water piping is generally in serviceable condition, except as noted below.

NOTABLE CONDITION - A section of copper water piping located at the front of the home is connected to PVC plastic piping (metal threads installed into a plastic fitting). No leakage was discovered, but technically this installation is nonconforming. We recommend repair.

3.8 Cross Connections

Potable water is water that is satisfactory for drinking, cooking, and other domestic purposes and meets the requirements of the health authority having local jurisdiction. A cross connection is any link between potable water and any source which may allow non-potable water and substances to enter any portion of the potable water supply system. Cross connections are insanitary and potentially unhealthy because they can allow used, unclean, polluted, and/or contaminated water, mixtures, and/or substances to enter and mix with the water used for domestic purposes. Potable water outlets other than water heater drains, boilers, and clothes washer connections should be protected by a non-removable hose bibb type backflow preventer. An air gap should be installed at the kitchen sink to prevent the contents of the garbage disposal being siphoned into the dishwasher. Atmospheric vacuum breakers and pressure backflow preventers should be installed at yard irrigation systems and swimming pool fill valves. All toilet overflow tubes should terminate one inch below the fill valve's vacuum breaker. All faucets should be a minimum of one inch above the flood level rim of any tub, sink or wash basin. Bathtubs and hydrotherapy tubs with hand held shower units should have deck mounted or wall mounted vacuum breakers installed a minimum of one inch above the flood level rim of the fixture. Kitchen sprayers and faucets with spray units should have integral vacuum breakers or deck mounted vacuum breakers a minimum of one inch above the floor level rim of the sink. We examine the locations where cross connections usually appear and report them to you.

ACTION ITEM - We discovered several cross connections. We recommend all cross connections be eliminated. Location: The exterior hose bibbs (faucets). Location: The kitchen faucet with a built-in pull-out sprayer.

Drain & Waste & Vent Piping

3.9 DWV Piping Type

The visible portions of the drain piping, waste piping, and vent piping are cast iron and copper.

3.10 DWV Observations

The exposed and accessible drain piping, waste piping, and vent piping is in serviceable condition.

Gas Meter

3.11 General Comments

The majority of the gas piping in a building is inaccessible. We, therefore, inspect only the gas piping that is immediately adjacent to gas meters. Pressure testing of the gas piping system may reveal leaks, but is beyond the scope of this inspection. All capped gas piping that may be placed into service, should first be pressure tested to ensure they are safe to use. The gas supply shut-off valve is located on the riser pipe between the ground and the meter. To shut off the gas to the building, first find the gas meter. Using a wrench, rotate the shut-off valve one-quarter turn (either direction) until it is perpendicular to the supply pipe.

3.12 Gas Meter Observations

The gas meter is in serviceable condition.

3.13 Meter Gas Meter Piping

NOTABLE CONDITION - The meter gas piping is corroded. We recommend this piping be fully prepped and painted to maximize its remaining service life.

3.14 Automatic Shut-off Valve

Some cities and counties have regulations that require the installation of automatic gas shut-off devices, which may include excess flow gas shut-off valves and/or earthquake actuated gas shut-off valves. Regulations vary, but generally apply to new building construction, or significant alterations or additions to existing buildings. Check with your local city or county agency to see if regulations apply in your area. If a customer installs an excess flow gas shut-off valve or earthquake actuated gas shut-off valve, it should be one that is certified by the State of California and it should be installed by a licensed plumbing contractor in accordance to the manufacturer's instructions. PG&E does not install or service seismic actuated or excess flow gas shut-off valves, or recommend specific contractors for customer applications. The State of California is required to approve all excess flow gas shut-off valves and earthquake actuated gas shut-off valves used in the State of California. A list of approved valves is available on the Internet web site http://www.dsa.dgs.ca.gov/gas_shutoff.htm Excess flow gas shut-off valves and earthquake actuated gas shut-off valves must be installed on the building's gas houseline piping (the gas pipe connecting your appliances to the gas meter) downstream of the utility point of delivery; i.e. after the PG&E gas shut-off valve, pressure regulator (if installed), meter(s), and the service tee. No attachments or connections of any kind are allowed on utility facilities prior to the point where the service tee connects to the gas houseline piping. Once installed, the valve must not obstruct the operation or serviceability of the PG&E piping, service shut-off valve, meter or pressure regulating equipment. In the event that a gas service shut-off valve or an automatic gas shut-off device is closed, there may be a considerable delay before PG&E can turn your service on, but don't turn it on yourself. PG&E or another qualified professional should perform a safety check, restore gas service, and relight any appliance pilots, even if the closure was not caused by an earthquake.

NOTABLE CONDITION - This building does not have either an earthquake-actuated gas shut-off valve or an excess-flow gas shut-off valve. We recommend the installation of one of these valves.

Exterior Plumbing

3.15 Outside Hose Bibbs

NOTABLE CONDITION - The front faucet handle is broken and should be replaced.

Conventional Gas Water Heater

3.16 General Comments

Storage tank water heaters are by far the most common type used in the United States. These systems heat and store water in a tank so that hot water is available to the home at any time. As hot water is drawn from the top of the tank, cold water enters the bottom of the tank and is heated. The heating source can be electricity, gas or oil. They range in capacity from thirty to one hundred gallons. They can be expected to last at least as long as their warranty, or from eight to ten years, but they will generally last longer. Some may last longer than fifteen or twenty years. But, eventually they all will fail. It is prudent to flush the water heater annually to remove minerals that include the calcium chloride bi-product of many water softening systems. The water temperature should be set at a minimum of 110 degrees Fahrenheit to kill microbes and a maximum of 140 degrees to prevent scalding. The temperature and pressure relief valve is an important safety device that prevents the water heater from exploding in the event of a defect in the built in operating and safety controls and, therefore, should always be operational. We do not attempt to test temperature and pressure relief valves because often times they will fail to reset and then leak. We recommend the valve be tested annually. If it fails to reset, it will need to be replaced. More efficient storage tank water heaters can perform as much as 40 percent better than conventional models. An energy-efficient model will typically have extra tank insulation for better heat retention and less standby loss (loss of heat through the walls of the tank), a better heat exchanger to transfer more heat from the energy source to the water, and a factory-installed heat traps which allows water to flow into the tank but prevent unwanted flow of hot water out of the tank. Energy-efficient gas-fired storage tank water heaters may include additional design features, such as, electronic ignition, which saves energy by eliminating the need for a continuous pilot light, powered exhaust improved control of flue baffle and flue damper, which reduces heat loss through the flue vent, and condensing heat exchangers, which greatly improve the overall efficiency.

3.17 Data Label

This gas-fired water heater is located in the garage. It has an output capacity of 50 gallons. The appropriate size of a water heater is determined by demand. Using the rule of thumb of 10 gallons of hot water per person per day, this water heater should be adequate for five individuals. This water heater was manufactured in 2006.

3.18 Observations

INVESTIGATE FURTHER - The gas to this appliance is shut off and we were unable to perform our usual and customary inspection of the water heater. With an opportunity for examination, conditions may be discovered. If inspection of the water heater is desired, this will be performed and upon arrangement at such time as the gas is turned on, the pilot light lit, and access provided.

3.19 Combustion Air

Combustion air is the total amount of air provided to a space in which fuel-burning appliances are located. It includes air for fuel combustion, for draft hood dilution, and for ventilation of the equipment enclosure. Providing and maintaining adequate combustion air is vital to ensure the safe operation of all fuel-burning appliances. Combustion air for the water heater is supplied from the exterior of the building and is adequate.

3.20 Water Fill Valve

A cold water fill valve is installed, accessible and in serviceable condition.

3.21 Water Connections

NOTABLE CONDITION - The water connectors are serviceable, but are rigid. As an upgrade, we recommend the installation of flexible lines to help prevent unnecessary damage in the event of a seismic event.

3.22 Gas Shut-Off Valve

The water heater is equipped with a gas shut-off valve for use in an emergency or in case of repair.

NOTABLE CONDITION - A sediment trap (sometimes referred to incorrectly as (Drip Traps or Drip Legs), is a small "Tee" pipe assembly installed in the gas line just before the appliance. The idea is that any debris/sediment in the gas will fall into the trap before it reaches the appliance gas control. The gas control valve is a sensitive device. Any debris that contaminates the control can cause the system to operate unsafely. The requirement for sediment traps has been around for years. Older Mechanical and Plumbing codes had requirements for sediment traps when local natural gas had debris in it. In the last California Code cycle, sediment traps became mandatory under all circumstances. Most gas furnace and gas water heater manufacturers have required them for years as well. The manufacture warranties will more than likely be void or invalid if these traps are not installed. A sediment trap is a few dollars of pipe parts and 15 minutes of labor. This appliance does not have a sediment trap and we recommend one be installed.

3.23 Gas Connector

The gas connector is an approved flexible type and is in serviceable condition.

3.24 Vent Pipe & Cap

NOTABLE CONDITION - Vents that pass through unconditioned areas such as attic, underfloor, and unconditioned basements are required to be listed Type B or Type L double wall vents. The California Mechanical Code Section 802.10.2 does not allow single wall vents. This vent is a single wall vent (type A). We recommend that it be replaced with an approved vent.

3.25 TPRV & Discharge Pipe

The water heater is equipped with a temperature and pressure relief valve. The discharge pipe is correctly configured and in serviceable condition.

3.26 Drain Valve

The drain valve is in place and presumed to be functional.

3.27 Drip Pan & Overflow Pipe

NOTABLE CONDITION - The water heater is equipped with a drip pan, which is designed to minimize water damage from a leak, however, the pan does not have a visible drain pipe to drain the pan. We recommend a drain pipe be installed and directed to the exterior of the building or to another approved location.

3.28 Strapping

The water heater is adequately strapped to the adjacent wall in order to resist falling or horizontal displacement due to earthquake forces.

3.29 Elevation

The water heater is installed with the required 18 inches of clearance between the pilot light and the garage floor.

Fire Suppression System

3.30 Disclaimer

This building has a fire-suppression system installed. Inspection is beyond the scope of our inspection. We offer no representations or warranties as to its present or future condition or performance. If you want or feel you need information about this system, we recommend you retain the services of a licensed fire-suppression contractor.

ELECTRICAL

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 conductors, branch circuitry, panels, overcurrent protection devices, and a random sampling of convenience outlets. Capacity, grounding and fusing are focal points. We look for adverse conditions such as improper installation of aluminum wiring, lack of grounding, overfusing, exposed wiring, running splices, reversed polarity, fused neutrals, and any other visible deficiency. We regard every electrical deficiency and recommended upgrade as a latent hazard that should be addressed before you take occupancy. The hidden nature of the electrical wiring prevents inspection of all electrical system components that are concealed from view and inaccessible. The inspection does not include low voltage lighting and/or switching systems, telephone wiring, intercoms, alarm systems, cable TV wiring, or timers. There may be distribution or subpanels that we did not locate and inspect during our inspection. Any panel found and not mentioned in our report, should be inspected by a licensed electrical contractor for reportable conditions.

Electrical Service

4.1 Ampacity and Nominal Voltage

The electrical has two separate disconnects. One is 60 amperes and the other is 100 amperes. The nominal voltage of both is 120/240.

4.2 Adequacy of Service

Our statement regarding service capacity is based upon the labeled rating of the electrical service disconnect devices. We do not represent that there are enough circuits installed for general purpose lighting and receptacle, small appliance, and/or special appliance loads. This would require calculating the feeder-circuit loads and is beyond the scope of our service.

NOTABLE CONDITION - The service capacity is limited by today's standards but is adequate for present demands. If demand is increased, it will likely be necessary to upgrade the service.

4.3 Overcurrent Protection

Overcurrent protection is provided by circuit breakers.

4.4 Conductor Material

The conductor material is copper.

4.5 Wiring

The wiring type used to electrify this building is nonmetallic sheathed cable called Romex, metal armored cable called BX, and insulated conductors.

4.6 Raceways

The raceways are electrical metallic tubing (EMT).

4.7 Service Entrance

The main conductor lines are underground, or part of a lateral service entrance. This is characteristic of modern electrical services but, inasmuch as the service lines are underground and cannot be seen, they are not evaluated as part of our inspection.

Grounding and Bonding

4.8 Grounding

The grounding electrode is a driven rod.

ACTION ITEM - The electrical system may not be grounded effectively because the grounding electrode is not fully driven into the earth. We recommend repair so that a full 8 feet of length is in contact with the soil.

4.9 Bonding

ACTION ITEM - The purpose of bonding the above-ground metal piping is to keep everything at the same electrical potential so there is no possibility of shock from simultaneously touching two different piping systems. If the interior piping is properly bonded, then should any of the piping become energized, a circuit is completed and the connected overcurrent protection device trips to interrupt the circuit. Some but not all of the above-ground metal piping is bonded. We recommend the water and gas piping be connected together in a manner that establishes and effective ground-fault path.

GFCI Protection

4.10 GFCI

Ground fault circuit interrupters (GFCIs) are modern electrical devices, either receptacles or circuit breakers, designed to protect the occupants from electric shock. In the event of a fault in a ground-fault protected appliance, the current passing through a person to ground is detected and the circuit is shut off, protecting from potentially fatal shocks. GFCIs are required in all wet or damp environments. These include, but may not be limited to, near all sinks, in bathrooms, garages, at spas, hot tubs, fountains, pools, crawl spaces, near laundry tubs, and on the exterior. We recommend that all such locations be provided with GFCI protection if they are not already so equipped. This will considerably improve electrical safety for occupants of the building. All GFCI devices must be tested in accordance with their manufacturer's recommendations to ensure that they continue to provide the necessary protection. GFCI protection is installed in all of the presently required locations.

AFCI Protection

4.11 AFCI

Conventional circuit breakers only respond to overloads and short circuits, so they don't protect against arcing conditions. Arc-fault circuit interrupters (AFCIs), on the other hand, are innovative circuit breakers designed to detect dangerous electrical conditions that may spark a fire in the home. AFCIs provide a safeguard against hidden issues that either exist (dubious wiring that may have been done over the years) or may occur during a remodel, such as electrical wires damaged during installation or light fixtures or outlet grounding problems. Updated Electrical Safety ACFIs have been in the National Electrical Code (NEC) since 1999 and were previously required to be installed during new-home construction to protect the circuits that power bedrooms. The 2008 NEC expanded the AFCI requirement to include dining and living rooms, sunrooms, and other gathering areas in the home, and the 2011 NEC required that AFCIs be installed in the bedrooms of existing dwellings. The 2014 NEC expands Arc-fault protection to all 120V single-phase 15A and 20A outlets or devices in the kitchen and laundry areas. This is the next logical progression in Arc-fault protection. The inclusion of AFCI protection in the kitchen includes the small appliance branch circuits, lighting and all individual appliance circuits, such as the garbage disposal, dishwasher, microwave, refrigerator and range hood. AFCI protection in the laundry area includes receptacles for the washer, an ironing board or those serving countertops in the area. If the laundry area isn't well defined, such as a laundry room, it may have to be determined by the Authority Having Jurisdiction (AHJ). AFCI circuit breaker protection is compatible with GFCI receptacle protection in these areas, or a dual function AFCI/GFCI circuit breaker can serve both protection requirements. There are three ways to achieve compliance with this new requirement: Replace the outlet with an AFCI outlet. AFCI outlets look almost identical to GFCI outlets. Install an AFCI outlet upstream from the new outlet. AFCI outlets can protect outlets wired downstream from them. Add AFCI protection to the entire circuit, using an AFCI circuit breaker. This is fairly easy to do in modern electric panels, but it's not possible with fuse panels and many older circuit breaker panels.

ACTION ITEM - Arch-fault protection is not present. We recommend a licensed electrician be retained to install AFCI protection in all presently required locations as established by the authority having jurisdiction (AHJ).

Main Panel

4.12 Main Panel Observations

The cover was removed and the circuitry within the panel was inspected. The circuitry is properly installed and correctly fused.

Subpanel

4.13 Location

The subpanel is located in the garage.

4.14 Subpanel Observations

The cover was removed and the circuitry within this subpanel was inspected. The circuitry is properly installed and correctly fused, except as noted below. We did not verify the accuracy of the labeling and we recommend each circuit be checked against its labeling.

4.15 Panel Cover Observations

NOTABLE CONDITION - Screws not designed for use with electrical equipment were used to secure the subpanel cover. The sharp ends of these screws can puncture and short the "live" wires within the panel. We recommend these screws be removed and approved blunt-end screws installed.

NOTABLE CONDITION - Cover screws are missing. We recommend the installation of approved blunt end screws where necessary.

4.16 Circuit Breakers

NOTABLE CONDITION - We discovered underfusing in this subpanel. This means the rated capacity of the overcurrent protection device or devices is less than the rated capacity of the conductor or conductors. This condition does not pose any hazard, although it can be an inconvenience. No action is presently indicated. However, if the overcurrent protection devices on the underfused circuits deenergize ("trip") frequently, we recommend overcurrent protection devices of appropriate amperage be installed.

Secondary Subpanel

4.17 Location

This subpanel is located in the laundry.

4.18 Subpanel Observations

The cover was removed and the circuitry within this subpanel was inspected. The circuitry is properly installed and correctly fused. The circuitry is labeled. We did not verify the accuracy of the labeling and we recommend each circuit be checked against its labeling.

Convenience Outlets

4.19 Switches

A representative number of switches were operated as a part of our inspection. The tested switches are serviceable.

4.20 Lights

A representative number of lights were operated using their switches and these are working and are in serviceable condition.

4.21 Receptacles

A random number of receptacles were checked and are working and tested as being wired correctly, except as noted below or in the rooms and areas where observed.

NOTABLE CONDITION - The front second story deck receptacle is loose and we recommend repair.

Garage Electrical

4.22 Receptacles

The receptacle here is protected by a GFCI. It tripped when tested, which indicates that it is functioning correctly.

Exterior Electrical

4.23 Receptacles

The GFCI protected exterior receptacles responded when tested, but we direct your attention below.

ACTION ITEM - The receptacle covers are not approved for these wet locations. We recommend the installation of approved in-use cover for these wet locations.

ACTION ITEM - The rear receptacle weatherproof cover is missing. We recommend a new cover be installed.

4.24 Wiring

ACTION ITEM - The right exterior junction box is open and should be sealed so that any arching or sparking would be contained within the box.

HEATING

There are a wide variety of heating systems, which range from newer high-efficiency ones to older low efficiency ones. Also, there are an equally wide variety of factors besides the climate that can affect their performance, ranging from the size of the house, the number of its stories, its orientation to the sun, the type of its roofing material, its ventilation system, and the thermal value of its insulation and window glazing. A heating system consists of the heating equipment, operating and safety controls, venting and a means of distribution. These items are visually examined for excessive and unusual wear and general state of repair. Filters, if present, should be replaced or cleaned at least once a year to help filter out dust and prevent its reentry into the occupied interior. A licensed heating contractor would have to be retained to thoroughly inspect the condition of heat exchangers as their design renders areas inaccessible for our visual inspection. During the service life of all heating equipment, we recommend periodic review by the local gas utility company and servicing by a qualified and licensed contractor for continued safe and efficient operation.

Forced-Air Furnace

5.1 Area Heated

This furnace supplies heat to the entire building.

5.2 Fuel Type

The furnace's fuel source is natural gas.

5.3 Furnace Type

The heater is a mid-efficiency forced-air furnace.

5.4 Data Label

This furnace was manufactured by Rheem. This furnace is located in the lower level attic. We were unable to read the data label and, therefore, unable to record the serial number or identify the btu input or date of manufacture. It is most likely the original furnace, which means that it is eighteen years old.

5.5 Operation & General Comments

INVESTIGATE FURTHER - The thermostat batteries were dead and the thermostat could not be used to activate the furnace. We, therefore, were unable to conduct our usual and customary inspection of this appliance. We recommend you retain a licensed heating contractor to replace the batteries and thoroughly inspect the furnace.

5.6 Clearance To Combustibles

Clearance to combustibles is adequate. Furniture and personal belongings should not be placed within eighteen inches of the furnace.

5.7 Vent Pipe

MONITOR - Vent corrector is corroded but still in serviceable condition. We recommend the vent be monitored for additional deterioration that would require replacement.

5.8 Combustion Air

The supply of combustion air for this appliance is supplied from the exterior of the building and is adequate.

5.9 Heat Exchanger

The heat exchanger, also referred to as the combustion chamber, is the area in the heater where combustion takes place. The heat is transferred from burning fuel gas to the circulating air through the walls of the heat exchanger. When a fracture (hole and/or crack) in the combustion chamber occurs, hazardous levels of carbon monoxide and formaldehyde gas can circulate through the occupied interior. Depending on the authority and study published, acceptable levels of carbon monoxide and formaldehyde gas in an indoor environment can vary greatly. There are a number of testing methods practiced to determine if a fractured heat exchanger is present. They can be reduced to a two-step process. First, a visual inspection with a flashlight can reveal a crack or a hole, making sure by feel that it is not simply discoloration or distortion. Another first step is flame observation. The flame is observed before and after the circulating air comes on. Floating flames, flame rollout and flame distortion can indicate a failure of the heat exchanger. The second step is tracer gas. A tracer gas is injected into the combustion chamber and a calibrated gas detector is used to check for the presence of the tracer gas on the air side of the heat exchanger. Neither visual inspection nor flame distortion should be used to confirm the other. Although a tracer gas test would be necessary to verify observations made visually or by flame and determine actual levels of carbon monoxide and formaldehyde gas, our experience has shown that identification of a fracture by visual inspection is sufficient to recommend that the furnace be repaired or replaced. Although it may be possible to repair or replace the heat exchanger, it is usually not considered cost effective and parts may be difficult or impossible to find. The most common course of action is to replace the heater. The heat exchanger is inaccessible because of the design of the furnace and we are unable to examine it for fractures.

5.10 Ducting

The accessible heating ducts are in serviceable condition.

5.11 General Comments

NOTABLE CONDITION - This furnace has not been regularly maintained. We recommend the unit be serviced, cleaned and tuned to ensure efficient operation and maximize its remaining useful life.

ROOF

There are many different roof types, which we evaluate by walking on their surfaces. If we are unable or unwilling to do this for any reason, we will indicate the method that was used to evaluate them. Every roof will wear differently relative to its age, the number of its layers, the quality of its material, the method of its application, its exposure to direct sunlight or other prevalent weather conditions, and the regularity of its maintenance. Regardless of its design-life, every roof is only as good as the waterproof membrane beneath it, which is concealed and cannot be examined without removing the roof material, and this is equally true of almost all roofs. In fact, the material on the majority of pitched roofs is not designed to be waterproof only water-resistant. However, what remains true of all roofs is that, whereas their condition can be evaluated, it is virtually impossible for anyone to detect a leak except as it is occurring or by specific water tests, which are beyond the scope of our service. Even water stains on ceilings or on the framing within attics, could be old and will not necessarily confirm an active leak without some corroborative evidence, and such evidence can be deliberately concealed. Consequently, only the installers can credibly guarantee that a roof will not leak, and they do. We evaluate every roof conscientiously, and even attempt to approximate its effective age, but our comments and conclusions do not constitute a warranty, guaranty, or policy of insurance regarding the watertight integrity of the roof. Naturally, the owner or the occupants will have the most intimate knowledge of the roof. Therefore, we recommend consultation with the owner or the occupants regarding the history of the roofing surfaces, leakage that may have been experienced in the past and repairs, if any that have been performed. All roofing materials require periodic maintenance to achieve maximum service life and should be inspected annually by an established local roofing company.

Synthetic Roofing

6.1 General Comments

There are many brands and they include; Cal-Shakes, Hardishake, Cemwood Shakes, Permatek Shakes, Fire-Free, Royal Shakes, Cascade Shakes, Trieste Tile, and Pacific Slate. These fiber reinforced cement roofing products claim to be walkable, permanent, impact resistant and usually come with a very long warranty. They are composed primarily of two materials: wood fiber and Portland cement. Wood is a naturally soft and porous material, so when it is exposed to water, it absorbs some of the liquid and expands in size. Portland cement, on the other hand, is extremely rigid and has almost no ability to expand. Thus, when the material is exposed to normal moisture, the fiber absorbs water and begins to expand, exerting pressure on the surrounding cement. The result is cracks in the shake, as well as microbial invasion resulting in continuous and progressive damage to the roof and underlying structure. These product failures occur regardless of installation or maintenance practices. We observed, chipped, cracked, and loose shake. These are classic symptoms of failure and we, therefore, recommend this roof be replaced.

6.2 Method of Evaluation

We elected not to walk the roof because the roofing material is easily broken, and evaluated it from a ladder.

6.3 Roof Surface

ACTION ITEM - This building's roof covering is a type of fiber reinforced cement shingle. There are many brands and they include; Cal-Shakes, Hardishake, Cemwood Shakes, Permatek Shakes, Fire-Free, Royal Shakes, Cascade Shakes, Trieste Tile, and Pacific Slate. These fiber reinforced cement roofing products claim to be walkable, permanent, impact resistant and usually come with a very long warranty. They are composed primarily of two materials: wood fiber and Portland cement. Wood is a naturally soft and porous material, so when it is exposed to water, it absorbs some of the liquid and expands in size. Portland cement, on the other hand, is extremely rigid and has almost no ability to expand. Thus, when the material is exposed to normal moisture, the fiber absorbs water and begins to expand, exerting pressure on the surrounding cement. The result is cracks in the shake, as well as microbial invasion resulting in continuous and progressive damage to the roof and underlying structure. These product failures occur regardless of installation or maintenance practices. We observed, chipped, cracked, and loose shake. These are classic symptoms of failure and we, therefore, recommend this roof be replaced.

EXTERIOR

Our evaluation of the exterior of a property conforms to the standards of the industry, and includes an evaluation of common components, such as sidewalks, driveways, walkways, patios, fences, gates, handrails, guardrails, retaining walls, carports, patio covers, decks, fascia, eaves, soffits and trim, balconies, doors, windows, lights, and outlets. However, we do not evaluate any detached structures, such as storage sheds and stables, and we do not water test or evaluate subterranean drainage systems or any mechanical or remotely controlled components, such as driveway gates. Also, we do not evaluate any landscape components, such as trees, shrubs, fountains, ponds, statuary, pottery, fire pits, patio fans, heat lamps, and ornamental or decorative lighting. Similarly, we do not comment on coatings or cosmetic deficiencies and the wear and tear associated with usage and the passage of time that would be apparent to the average person.

General Conditions

7.1 General Comment

The caretaker may have information regarding the maintenance and repair history of the exterior to determine the nature, extent and frequency of maintenance and repair that has been necessary and performed to date. All vegetation on the property should be maintained to prevent over growth and encroachment onto the building. As preventive maintenance, we recommend caulking and sealing the gaps in the exterior of the building around the doors, windows, and plumbing and electrical entry points. This will help prevent heat loss, cold air infiltration, and moisture entry.

Siding

7.2 Stucco Siding Observations

Stucco is a brittle material and has very little ability to flex. Stucco will crack; occasional "hairline" cracks are common however, larger or more extensive cracks can become a problem. Cracking can be separated into two main categories: Internal stress - Portland cement shrinks as it hardens or cures. This is an inherent attribute of the materials. The result of this shrinkage may be cracking at the point or path of least resistance or at the center of large panels with no relief. Relief, expansion, or control joints may help reduce or contain cracking by limiting the size and configuration of stucco areas. External stress - External stress forces act on the cured stucco. Forces such as earthquakes, ground swelling or settlement, wind loads, thermal expansion and contraction can translate into cracks in stucco. Moisture penetrating behind stucco and through the underlying building paper and flashings may cause wood framing to swell resulting in cracking of the interior plaster and drywall. Moisture enters the wall systems through cracks and where stucco abuts other materials such as a door and window frames. Moisture can get behind the stucco wall system through other building components such as at roofs and decks. The stucco siding was observed while walking around the exterior of the building. The accessible siding is in serviceable condition. Regular maintenance will maximize the service life of the weather shell.

Fascia & Trim & Eaves

7.3 Fascia & Trim & Eaves

The fascia, trim and eaves are generally in serviceable condition. We did notice one or more noted conditions, which are listed below.

NOTABLE CONDITION - The stucco soffit vent screens were painted and the vent holes are now partially obstructed with paint. We recommend the holes be opened in order to provide sufficient ventilation in the event of moisture penetration into these wood frame enclosed spaces.

Paint & Stain

7.4 Paint

The exterior painted surfaces are in serviceable condition. As with any recently refinished and freshly painted surfaces, conditions may be present that were not readily apparent at the time of our inspection. We do not suggest or represent that this inspection will identify all such conditions.

Windows & Doors

7.5 Safety Glazing

Because it is harder to break and less likely to cause injury if broken, tempered safety glass is now required in specified locations in a building. These locations include, but are not limited to, all door glass, most large windows, windows near doors and floors, windows in showers and near bathtubs, and enclosures in showers, hot tubs, whirlpools, saunas, steam rooms, showers, and bathtubs. The mandatory locations in this building are identifiable as being tempered safety glass.

7.6 Wooden Swinging Doors

The exterior doors are in serviceable condition.

NOTABLE CONDITION - All of the exterior door locks should be re keyed after the transfer of ownership to ensure personal safety and security.

7.7 Windows

The windows are generally in serviceable condition. We observed one or more notable conditions, which are listed below or in the specific rooms or areas where observed.

Steps & Decks & Porches & Balconies

7.8 Yard Steps

NOTABLE CONDITION - The front stairway is nonconforming because there is a variation in the height of the risers greater than 3/8 inch. This is, therefore, considered a tripping-hazard. No action is presently required, however, upgrading this stairway should be considered in the course of future remodeling. In the meantime, caution should be exercised when using these stairs.

NOTABLE CONDITION - There is damage to the rear yard small deck stairway. We recommend repair.

7.9 Wood Deck

The rear yard small deck is generally in serviceable condition. We observed one or more notable conditions, which are noted below.

MONITOR - The chemicals used to preserve lumber can be corrosive to some metal fasteners and connectors. According to metal connector manufacturers, stainless-steel hardware and fasteners (Types 304 and 316) offer the best protection with treated lumber. G185 galvanized hardware (1.85 ounces of zinc per square foot), such as Simpson's Z-MAX or USP's Triple Zinc is also recommended. Premature corrosion can also be prevented by isolating all metal framing connectors from the treated framing with pieces of 15# felt. Each joist hanger needs two pieces, one applied to the ledger board or rim joist, and one strip a few inches wide wrapped around the three sides of the joist resting in the hanger. This probably adds an hour or two to the labor of the deck, but is time well spent and cheap insurance against future problems. The metal connectors and fasteners used in the construction of this deck are not recommended for use with treated lumber. There is no isolation between the connectors and the wood. While there is presently no visible corrosion, deterioration can be expected over the next few years. We recommend periodic inspection to identify any connectors and fasteners that are corroded enough to warrant replacement. All wood decays and will eventually need placing. When reconstructed, we recommend that you build with the most up-to-date construction materials and methods.

7.10 Tile Deck

MONITOR - The construction detail of the two second story decks consist of tile installed over wooden framing. There is a moisture barrier between the wood framing and the finished surface designed to keep the decks from leaking and water from damaging the wood below. The decks appear serviceable, but we cannot see the moisture membranes because of the installation of the finished surfaces. We observed nothing to suggest there is a problem. But, if moisture get past the membranes or the membranes are inadequate, defective, or improperly installed, leakage can occur. We, therefore, recommend the following. First, periodically inspect the areas below these decks for any signs of leakage. Second, annually inspect the deck surfaces for deterioration and damage. Any discovery of leakage below and/or surface deterioration or damage should be swiftly addressed. NOTE: it was pointed out that there is damaged framing (Pest Control Inspection) at the front deck. Please refer to the most recent Pest Control Inspection Report for additional information.

7.11 Guards

ACTION ITEM - The second story decks' guards construction are nonconforming because they are too short. Although these guards may have been acceptable when they were installed, they are considered a potential hazard by today's standards. We recommend these guards be upgraded by increasing their height. Present building standards require a minimum guard height of 42 inches for any drop off greater than thirty inches.

7.12 Handrails

The handrails are serviceable.

Flatwork & Fencing & Retaining Walls

7.13 General Comments

During our site inspection, particular attention is directed to identifying tripping hazards. A tripping hazard is defined as a flatwork irregularity exceeding three quarters of an inch in height. We advise periodic inspection of all flatwork for tripping hazards.

7.14 Sidewalk

The sidewalk is in serviceable condition.

7.15 Driveway

There are minor cracks at the driveway. Action would only be necessary if any of the cracks develop into tripping hazards.

7.16 Walkways

The walkways are in serviceable condition.

7.17 Fencing & Gates

INVESTIGATE FURTHER - The fencing is overgrown with vegetation and we were unable to examine it. With access and an opportunity for examination, reportable conditions may be discovered. We recommend the vegetation be removed and further inspection performed to determine its condition and the need for any corrective action.

NOTABLE CONDITION - The right side gate is missing components necessary for it to latch and lock. We recommend repair.

7.18 Patio

The patio is in serviceable condition.

Grading & Drainage

7.19 Building Site and Drainage Overview

Water can be destructive and foster conditions that are deleterious to health. For this reason, the ideal property will have soils that slope away from the residence and the interior floors will be several inches

higher than the exterior grade. Also, the residence will have roof gutters and downspouts that discharge into area drains with catch basins that carry water away to hard surfaces. Installed drainage systems are not water tested during the inspection. We offer no representations as to their effectiveness and recommend their operation be observed during adverse weather. We can observe some, but probably not all, of the intake and discharge points for any installed drainage system. The owner or the occupant should identify and flag them for future reference. The owner or the occupant should also be consulted regarding the history of site drainage including the nature, extent and frequency of water that collects during adverse weather. Subareas present unique challenges with regards to preventing water intrusion. The most common problem involves seepage through foundation walls, which is often a result of inadequate drainage and poor grading away from the foundation. The first line of defense against poor drainage involves diversion of roof run-off using a proper gutter system and appropriate grading away from foundation surfaces. Gutters help prevent intrusion caused by excessive surface water, but by itself gutter installation does little to mitigate subsurface problems. Perimeter grading will also help divert excess water away from the foundation. Still, grading must be regularly monitored and maintained.

7.20 Lot Configuration

The lot is not uniform and has both flat and sloped sections.

7.21 Surrounding Topography

The surrounding topography is rolling hills.

7.22 Grading

MONITOR - The configuration of this lot can allow subsurface and surface water intrusion through and under the foundation and into the subarea. Regrading of soil surrounding the building is not realistic and there is no evidence of excessive moisture in the subarea. Therefore, no action is presently called for. We do, however, recommend the subarea be monitored during the rainy season for signs of excessive moisture. If one discovers excessive moisture, we recommend you retain the services of an experienced drainage specialist to evaluate the site drainage and to recommend an appropriate course of action.

7.23 Grade Level

The foundation is sufficiently above grade level.

7.24 Exterior Drainage

This property features both a surface and subsurface drainage system to collect surface water and soil moisture away from the building. Exterior drainage appears adequate. We found no evidence of moisture conditions that would indicate the need for any drainage improvements at this time.

7.25 Sump Pump

INVESTIGATE FURTHER - The rear yard features a sump well and pump to remove excessive moisture. The sump well was dry at the time of our inspection. The pump, therefore, was not activated because operating a pump without water present can damage the pump. We recommend the pump be activated with the sump well full of water. We did not view the system under normal working conditions and, therefore, cannot comment on its effectiveness. We recommend monitoring over the course of the winter to see how well it works. Pumps do not last forever, and we recommend that you check the pump before each rainy season to ensure that it is functional. We encourage you to purchase a spare pump while local retailer's inventory is plentiful in case this pump fails.

7.26 Building Pad

The building pad is sloped.

7.27 Interior-Exterior Elevations

NOTABLE CONDITION - At points around the building, there are similar elevations between the exterior grade and the interior floors. Such conditions are obviously not ideal and moisture intrusion could result. The door thresholds must be kept sealed and the base of the walls monitored and particularly during periods of prolonged rainfall.

7.28 Area Drains

The property is served by area drains that appear to be in serviceable condition. However, because it is impossible to see inside them, we cannot guarantee their performance during periods of prolonged and heavy rainfall. The owners or the occupants should also be consulted regarding the history of these drains including the nature, extent and frequency of water that collects during adverse weather. They must be clear of debris to ensure that they drain.

PARKING

Off-street parking may be an attached or detached garage, carport, parking deck or other area designed for vehicle parking. Garages have doors, windows, floors, walls, and ceilings. There are often components of the plumbing, electrical, heating, and other systems present in a garage. These items are examined excessive and unusual wear and general state of repair.

Attached Garage

8.1 Notes

Garage doors are the largest moving object in a home. Children should be warned of the potential risk of injury and switches for door openers should be located as high as practical to prevent children from playing with doors. Operation of the safety mechanisms should be verified monthly. Regular lubrication of the garage door tracks, rollers, springs, and mounting hardware is recommended.

8.2 Garage Door

The garage door is generally in serviceable condition, however, there are one or more reportable conditions, which appear below.

NOTABLE CONDITION - The hardware used to connect the door panels is loose and/or missing. We recommend all missing hardware be replaced and all loose hardware tightened. This will ensure the door operates correctly and maximize its remaining service life.

8.3 Automatic Opener

An opener is installed to automatically raise and lower the garage door. It responded and the garage door properly stopped and reversed direction when the door reached a 2 inch block of wood placed on the floor beneath it.

8.4 Infrared Beam

ACTION ITEM - An infrared beam is also present. This is designed to reverse the door when a person, animal, or an object crosses the path of the door at floor level. The infrared system is serviceable. The door stopped and reversed when the beam was interrupted. However, the beam is installed too far above the garage floor. For maximum protection, we recommend the beam be reinstalled no more than six inches above the floor or as per the manufacturer's specifications.

8.5 Garage Door Balance

The inspector detached the garage door from its trolley and operated the door manually. It remained open indicating it is properly balanced.

8.6 Passage Door

ACTION ITEM - The principal means of passive fire protection in a home is by completely enclosing the garage with a fire barrier. Fire barriers include fire doors, walls, and ceilings. Fire barriers play an integral role in managing a fire by interrupting the spread of smoke, other toxic gasses, and the fire itself from one fire zone into another. Fire doors are fundamental to the integrity of fire barriers because any time there is an access portal (such as a doorway) to the living space, a fire barrier is broken temporarily. To minimize the break in protection, fire doors must be self-closing and have proper latching devices in order to provide as much resistance as possible to the spread of fire, smoke, and toxic gasses. The passage door is self-closing, but it does not latch without using the dead bolt. We recommend the removal of the dead bolt and the installation of a traditional latch.

8.7 Yard Door

The exterior door providing yard access is in serviceable condition.

8.8 Ventilation

There is exterior venting, which brings fresh air into the garage and allows fumes from automobiles to exit the garage and protect the occupants inside.

INTERIOR

In accordance with industry standards, our inspection of the living space includes the visually accessible areas of walls, floors, steps, stairways, balconies, guardrails, and railings cabinets and closets, and includes the testing of a representative number of windows and doors, switches and outlets. However, we do not evaluate window treatments, nor move furniture, lift carpets or rugs, empty closets or cabinets, and we do not comment on cosmetic deficiencies. We may comment on the cracks that appear around windows and doors, or which follow the lines of framing members and the seams of drywall and plasterboard. These cracks are a consequence of movement, such as wood shrinkage, common settling, and seismic activity, and will often reappear if they are not correctly repaired. Such cracks can become the subject of disputes, and are therefore best evaluated by a geologist or a structural engineer. Similarly, there are a number of environmental pollutants that can contaminate a home, such as asbestos, carbon monoxide, radon, and a variety of molds and fungi that require specialized testing equipment, which is beyond our expertise and the scope of our service. There are also lesser contaminants, such as musty odors, which are typically caused by moisture penetrating slabs that are concealed by carpets and padding, or those caused by household pets and, inasmuch as the sensitivity to such odors is not uniform, we recommend that you make this determination for yourself, and particularly if domestic pets are occupying the premises, and then schedule whatever service may be deemed appropriate before the close of escrow.

Building Interior

9.1 Walls & Ceilings

The walls and ceiling are in serviceable condition.

9.2 Vaulted Ceilings

NOTABLE CONDITION - The area between the roof sheathing and the interior vaulted ceilings is inaccessible, but appears minimally vented. Poor ventilation is conducive to condensation buildup and can result in damage of the roof sheathing. Poor of air circulation also causes premature roof wear as a result of excessive heat buildup. We recommend improving ventilation. Damage may be present in the inaccessible areas. Therefore, as this work begins, damage may be discovered. Obviously, any damage encountered would add to the scope of work and would necessarily increase the cost of work.

9.3 Floors

The condition of floors underneath carpet and other coverings cannot be determined visually and is specifically excluded from this inspection and report. It is not uncommon for the interior floors to be slightly sloped. This condition is the result of typical support system settlement and/or framing irregularities.

Individual perception and sensitivity to floor sloping and settlement vary greatly. Measurement of floor slope is beyond the scope of our inspection. Interior floors are generally in serviceable condition.

9.4 Passage Doors

A random number of interior doors were inspected. They are generally in serviceable condition, but we did notice one or more reportable conditions, which are noted below or in the rooms and areas where observed.

9.5 Windows

A random number of windows were opened and closed and are in serviceable condition.

9.6 Primary Stairway

This stairway was used several times during our inspection and is in serviceable condition.

9.7 Secondary Stairway

NOTABLE CONDITION - The construction of this stairway is nonconforming because the headroom is less than the present requirement of 6 feet 8 inches. No action is recommended, however, upgrading this stairway should be considered during future remodeling projects.

NOTABLE CONDITION - Stairway treads should be a minimum of 10 inches with nosing and 11 inches without nosing. The stairs do not meet this requirement. Although this is a potential tripping hazard, no action is recommended at this time. Upgrading this stairway should be considered in the course of future remodeling. In the meantime, caution should be exercised when using these stairs to prevent falling.

9.8 Guards

The guardrails are in serviceable condition.

9.9 Handrails

The primary stairway handrail is serviceable.

ACTION ITEM - There is no handrail installed at the secondary stairway. Stairs with four or more risers presently require a handrail. For an increased margin of safety, we recommend a grippable handrail be installed.

9.10 Smoke Detectors

The two most commonly recognized smoke detection technologies are ionization smoke detection and photoelectric smoke detection. Ionization smoke detection is generally more responsive to flaming fires. How they work: Ionization-type smoke alarms have a small amount of radioactive material between two electrically charged plates, which ionizes the air and causes current to flow between the plates. When smoke enters the chamber, it disrupts the flow of ions, thus reducing the flow of current and activating the alarm. Photoelectric smoke detection is generally more responsive to fires that begin with a long period of smoldering (called smoldering fires). How they work: Photoelectric-type alarms aim a light source into a sensing chamber at an angle away from the sensor. Smoke enters the chamber, reflecting light onto the light sensor; triggering the alarm. For each type of smoke alarm, the advantage it provides may be critical to life safety in some fire situations. Home fatal fires, day or night, include a large number of smoldering fires and a large number of flaming fires. You cannot predict the type of fire you may have in your home or when it will occur. Any smoke alarm technology, to be acceptable, must perform acceptably for both types of fires in order to provide early warning of fire at all times of the day or night and whether you are asleep or awake. The best evidence has always indicated that either type of smoke alarm will provide sufficient time for escape for most people for most fires of either smoldering or flaming type. However, research is ongoing, and standards are living documents. If at any time, research points to a different conclusion, then that will lead to proposals for changes in the National Fire Protection Association (NFPA) standard or the closely related Underwriters Laboratories standard for testing and approving smoke alarms. Both organizations currently have task groups looking at smoke alarm performance in the current home environment. For best protection, it is recommended both (ionization and photoelectric) technologies be in homes. In addition to individual ionization and photoelectric alarms, combination alarms that include both technologies in a single

device are available. Smoke detectors are presently required on each floor (including basements), in the corridors leading to all sleeping areas, and in rooms where the ceiling height of a room open to a hallway serving the bedrooms exceeds that of the hallway by 24 inches or more. In newer buildings and those that have undergone renovation, hard-wired smoke detectors with battery backup are required in the corridors leading to all sleeping areas and in each of the sleeping rooms. Whether or not installation is required prior to sale, or as a consequence of remodeling, we strongly recommend their installation. We do not test smoke detectors or verify their type. We only determine if detectors are present and where they are installed. We recommend that all batteries be replaced when you take occupancy. Smoke detectors should be checked periodically in accordance with their manufacturer's recommendations to ensure they remain fully operational. We recommend that smoke detector batteries be changed with any change in occupancy and twice a year thereafter. A convenient time to change batteries is with the changing of your clocks in the spring and fall. Smoke detectors are present and correctly installed.

9.11 CO Detectors

Senate Bill 183 in California requires Carbon Monoxide Alarms for dwelling units intended for human occupancy with a fuel burning appliance, fireplace or attached garage. The effective date of this law is January 1, 2011 for new construction, July 1, 2011 for existing single family dwellings and January 1, 2013 for multi-family dwellings and buildings such as apartments and hotels. "Dwelling unit intended for human occupancy" means a single-family dwelling, factory-built home as defined in Section 19971, duplex, lodging house, dormitory, hotel, motel, condominium, stock cooperative, time-share project, or dwelling unit in a multiple-unit dwelling building. The code states "With respect to the number and placement of carbon monoxide devices, the devices shall be installed in a manner consistent with building standards applicable to new construction for the relevant type of occupancy." One alarm is required outside each sleeping area, on each story and in the basement. Alarms are required to be approved by a nationally recognized testing laboratory (NRTL) such as UL or ETL to the ANSI/UL 2034 standard and be approved and listed by the California State Fire Marshal (CSFM). Alarms may be hardwired with battery backup, plug-in with battery backup or battery operated. Combination smoke and carbon monoxide alarms are also acceptable as long as they meet ANSI/UL 2034 and 217 standards. Exemptions are included for buildings containing neither attached garage nor fossil fuel burning appliances. Carbon Monoxide detectors are present and installed in appropriate locations.

Living Room

9.12 Windows

NOTABLE CONDITION - There is condensation between the panes of glass in two of the window insulated glass units, indicating failed seals. There is no simple "fix" for this condition. We recommend the failed insulated glass be replaced.

Dining Room

9.13 Sliding Glass Door

NOTABLE CONDITION - There is missing door hardware and we recommend replacement to ensure the door opens, closes, latches, and has an acceptable cosmetic appearance.

Entry Level Right Office

9.14 Passage Doors

NOTABLE CONDITION - This room's passage door is rubbing on its jamb, which makes it difficult to open and close. We recommend this door be repaired to restore it to a serviceable condition.

ATTIC

In accordance with our standards, we do not attempt to enter attics that have less than thirty-six inches of headroom, are restricted by ducts, or in which the insulation obscures the joists and thereby makes mobility hazardous, in which case we would inspect them as best we can from the access point. In regard to evaluating the type and amount of insulation on the attic floor, we use only generic terms and approximate measurements, and do not sample or test the material for specific identification. Also, we do not disturb or move any portion of it, and it may well obscure water pipes, electrical conduits, junction boxes, exhaust fans, and other components.

Primary Attic Space

10.1 Attic Area

The attic is undeveloped and contains no living space.

10.2 Attic Access Location

The attic access is located in the second floor rear left bedroom closet.

10.3 Method of Evaluation

The attic was inspected from our ladder placed in the access opening.

10.4 Common Observations

MONITOR - No signs of active leakage were observed. But, conditions can change and we recommend the attic be inspected, at least once during winter rains, for signs of active leakage.

10.5 Ventilation

Ventilation helps reduce attic moisture levels and prevents condensation on the underside of the roofing surfaces, sheathing, and framing. It also reduces heat build-up and provides greater interior comfort. Our experience regarding attic ventilation is that "you can never have too much". Ventilation can be provided by eave, gable, eyebrow, and ridge vents as well as by thermostatically controlled fans, whole house fans, solar fans, and wind driven ventilators. We encourage use of any or all of these items. Enclosed attics should have cross ventilation. It is recommended that high (exhaust) and low (intake) ventilation be used. Where high and low ventilation is approximately equal, one square foot of ventilation for each three hundred square feet of attic area is required. Where high and low ventilation is not used one square foot per 150 square feet is required. Screen vents must be 1/4" mesh.

NOTABLE CONDITION - The ventilation for this attic is minimal. We recommend additional ventilation be installed.

Second Attic Space

10.6 Attic Area

This attic is also undeveloped and contains no living space.

10.7 Attic Access Location

The attic access is located in the lower level bedroom.

10.8 Method of Evaluation

The attic was inspected from our ladder placed in the access opening.

10.9 Common Observations

MONITOR - No signs of active leakage were observed. But, conditions can change and we recommend the attic be inspected, at least once during winter rains, for signs of active leakage.

10.10 Ventilation

This attic is adequately vented.

FIREPLACE AND CHIMNEY

There are a wide variety of fireplaces, which represent an even wider variety of the interrelated components that comprise them. However, there are three basic types, single-walled metal, masonry, and pre-fabricated metal ones that are commonly referred to as factory-built ones. Single-walled metal ones should not be confused with factory-built metal ones, and are rarely found in residential use anymore, but masonry and factory-built ones are a commonplace. Our inspection of them conforms to industry standards, and is that of a generalist and not a specialist. However, significant areas of wood-burning fireplace chimney flues cannot be adequately viewed during a field inspection, as has been documented by the Chimney Safety Institute of America, which reported in 1992: "The inner reaches of a flue are relatively inaccessible, and it should not be expected that the distant oblique view from the top or bottom is adequate to fully document damage even with a strong light." Therefore, because our inspection of wood-burning fireplace chimneys is limited to those areas that can be viewed without dismantling any portion of them, and does not include the use of specialized equipment, we will not guarantee their integrity or drafting ability and recommend all wood-burning fireplace chimneys be video-scanned before the close of escrow. We recommend all wood-burning fireplace chimneys be cleaned and the interior thoroughly inspected before use each year.

Fireplace and Chimney

11.1 Location of Fireplace:

This fireplace is located in the living room.

11.2 Type of Fireplace:

This is a zero clearance fireplace installed. It is a metal double or triple walled unit that allows installation within inches of flammable materials.

11.3 Rain Cap-Spark Arrestor

NOTABLE CONDITION - The chimney does not have a spark arrestor or rain cap. We recommend one be installed to prevent sparks from escaping the flue and prevent moisture from entering and damaging the flue and the interior of the smoke chamber and firebox assemblies.

11.4 Flue

The visible portions of the metal flue are in serviceable condition.

11.5 Firebox

The fireplace firebox is in serviceable condition with no evidence of excessive or unusual wear.

11.6 Damper

There is throat-mounted chimney damper present and it is in serviceable condition. NOTE: The gas pipe that supplies gas to this fireplace was removed at the time of our site visit. If gas service for the fireplace is installed, then the damper will need to be permanently vented.

11.7 Hearth

The hearth is in serviceable condition.

11.8 Soot and Creosote

The chimney flue is clean. The Chimney Safety Institute of America recommends that open masonry fireplaces should be cleaned at 1/8" of sooty buildup, and sooner if there is any glaze present in the system. Factory-built fireplaces should be cleaned when any appreciable buildup occurs. This is considered to be enough fuel buildup to cause a chimney fire capable of damaging the chimney or spreading to the home.

KITCHEN

The finished kitchen surfaces and components are examined for excessive or unusual wear and general state of repair. We operate major kitchen appliances for their functionality only and do not evaluate them for their performance. You may wish to retain a separate appliance inspection for a thorough evaluation of performance, efficiency, suitability, and safety. We do not operate the following items: free-standing appliances, refrigerators, built-in toasters, coffee-makers, can-openers, blenders, water-purifiers, barbecues, grills, or rotisseries, timers, clocks, thermostats, and the self-cleaning capacity of ovens. We have no information pertaining to manufacturers' recalls of any component or appliance. For information concerning recalls, we recommend you visit the following website: www.cpsc.gov.

Kitchen

12.1 General Comments

We have inspected this kitchen and found a number of notable conditions that are described below.

12.2 Faucet

NOTABLE CONDITION - The faucet is loose and should be secured.

12.3 Receptacles

The countertop receptacles here are protected by multiple GFCIs. They tripped when tested, which indicates that they are functioning correctly.

12.4 Dishwasher

NOTABLE CONDITION - The dishwasher failed to respond to normal user controls. We recommend an appliance technician be retained for further inspection and to recommend an appropriate course of action.

12.5 Garbage Disposal

ACTION ITEM - The garbage disposal is leaking and we recommend it be replaced.

12.6 Gas Range

NOTABLE CONDITION - Multiple surface burners failed to ignite. We recommend an appliance technician be retained to evaluate this appliance and determine the scope and cost of repair(s) necessary to restore it a serviceable condition.

12.7 Gas Cooktop

NOTABLE CONDITION - The surface burner failed to ignite. We recommend an appliance technician be retained to evaluate this appliance and determine the scope and cost of repair(s) necessary to restore it a serviceable condition.

12.8 Exhaust Fan

The exhaust fan responds to its control switch.

LAUNDRY

In accordance with industry standards, we do not test clothes dryers, nor washing machines and their water connections and drainpipes. However, there are two things that you should be aware of. The water supply to washing machines is usually left on, and their hoses can leak or burst under pressure and continue to flow. Therefore, we recommend replacing the rubber hose type with newer braided stainless steel ones that are much more dependable.

Laundry

13.1 Location

The laundry is located in a separate laundry room.

13.2 Dryer Configuration

The dryer hookup is configured for a gas unit only.

13.3 General Conditions

NOTABLE CONDITION - As a preventive measure, we recommend that a drained catch pan be installed under the clothes washer to prevent leakage into the flooring and damage to surrounding areas in the event of a leak or overflow.

13.4 Drains

NOTABLE CONDITION - There is no drain for the clothes washer. We recommend a drain be installed in a workmanlike manner and in accordance with all requirements established by the authority having jurisdiction.

13.5 Gas Valve & Connector

The dryer is equipped with a gas shut-off valve for use in an emergency or in case of repair.

NOTABLE CONDITION - A sediment trap (sometimes referred to incorrectly as (Drip Traps or Drip Legs), is a small "Tee" pipe assembly installed in the gas line just before the appliance. The idea is that any debris/sediment in the gas will fall into the trap before it reaches the appliance gas control. The gas control valve is a sensitive device. Any debris that contaminates the control can cause the system to operate unsafely. The requirement for sediment traps has been around for years. Older Mechanical and Plumbing codes had requirements for sediment traps when local natural gas had debris in it. In the last California Code cycle, sediment traps became mandatory under all circumstances. Most gas furnace and gas water heater manufacturers have required them for years as well. The manufacture warranties will more than likely be void or invalid if these traps are not installed. A sediment trap is a few dollars of pipe parts and 15 minutes of labor. This appliance does not have a sediment trap and we recommend one be installed.

13.6 Dryer Vent

Clothes dryers, which require exterior exhausting, should have an exhaust duct. Dryer ducts are required to have a smooth interior finish, constructed of metal a minimum of .016 inch thick, and 4 inches nominal in diameter. They should be supported at 4 foot intervals and not exceed the maximum length (horizontal and/or vertical) of 14 feet including two (90-degree) turns without a mechanical upgrade. Two feet of length shall be deducted for each additional 90-degree turn. Dryer venting should terminate on the exterior of the building 3 feet from the property line and have a back draft damper (flapper). Screens shall not be permitted or installed at the dryer vent termination. Clothes dryer vent pipes should not pass through or extend into other ducting or plenums. Dryer ducting should not be fastened with screw type fasteners which may impede the air flow or catch lint, yet must be fastened and sealed "substantially airtight" at each joint. (An approved fastening system is aluminum duct tape) Clothes dryer vent ducts should be metal and shall have a smooth interior surface. An approved "flexible duct connector" of not more than 6 feet in length may be used to connect the dryer to the dryer vent pipe. "Flexible duct connectors should not be concealed within the construction." (Flex duct connectors should not pass into or through a concealed space. This includes cabinets, walls and attic spaces).

13.7 Ventilation

Laundry ventilation is adequate to control normal moisture conditions.

13.8 Receptacles

The countertop receptacles here are protected by a single GFCI. It tripped when tested, which indicates that it is functioning correctly.

13.9 Laundry Sink

ACTION ITEM - The sink trap is leaking and we recommend repair.

BEDROOMS

In accordance with the standards of practice, our inspection of bedrooms includes the visually accessible areas of walls, floors, cabinets and closets, and includes the testing of a representative number of windows and doors, switches and outlets. We evaluate windows to ensure that they meet light and ventilation requirements and facilitate an emergency exit or egress, but we do not evaluate window treatments, nor move furniture, lift carpets or rugs, empty closets or cabinets, and we do not comment on common cosmetic deficiencies.

Lower Right Hallway

14.1 General Comments

We have performed our usual and customary inspection of this bedroom and found no significant adverse conditions.

Upstairs Rear Left

14.2 General Comments

We have performed our usual and customary inspection of this bedroom and found no significant adverse conditions.

Upstairs Rear Right

14.3 General Comments

We have performed our usual and customary inspection of this bedroom and found no significant notable conditions.

Upstairs Front Master

14.4 General Comments

We have performed our usual and customary inspection of this bedroom and note it to be in generally serviceable condition. We did observe one or more notable conditions, which are identified below.

14.5 Doors

NOTABLE CONDITION - There is missing sliding glass door hardware and we recommend replacement to ensure the door opens, closes, latches, and has an acceptable cosmetic appearance.

14.6 Windows

NOTABLE CONDITION - There is condensation between the panes of glass in the window insulated glass unit, indicating a failed seal. There is no simple "fix" for this condition. We recommend the failed insulated glass be replaced.

BATHROOMS

Shower pans are visually checked for leakage when the framing beneath is accessible and visible, but leaks often do not show except when the shower is in actual use. Determining whether shower pans, tub/shower surrounds are water tight is beyond the scope of this inspection. It is very important to maintain all grouting and caulking in the bath areas. Older shower pans can tend to leak under conditions that may not have been present during the course of the inspection. Very minor imperfections can allow water to get into the wall or floor areas and cause damage. Proper ongoing maintenance will be required in the future. Sealing of grout is recommended in all new tile applications to minimize staining. Fixtures for the shower or tub should be equipped with an anti-scald device for safety. If older fixtures are present that lack anti-scald protection, I recommend they be replaced by a licensed plumbing contractor for safety. Periodic re-caulking and grouting of tub and shower areas is an ongoing maintenance task which should not be neglected. Areas which should be examined periodically are vertical corners, horizontal grout lines at walls near floor areas, the underside of shower curbs, the tub lip, tub spouts, faucet trim plates and any other areas specifically mentioned in this report. Silicone acrylic latex caulk is the product of choice, as it has long life and easy clean-up.

Laundry Room

15.1 Shower Over Tub

The finished shower walls were tapped to test for signs of possible damage and none was observed. The walls are in serviceable condition.

15.2 Window

NOTABLE CONDITION - The window is low enough on the shower wall to allow water entry into the walls. We recommend a curtain be installed over the window to minimize moisture accumulation and that all joints around the window and wall be caulked and sealed.

15.3 Ventilation

Bathroom ventilation is adequate to control normal moisture conditions.

15.4 Receptacles

The receptacle here is protected by GFCI. The receptacle tripped when tested, which indicates that the GFCI is functioning correctly.

Second Floor Hallway

15.5 Shower Over Tub

NOTABLE CONDITION - The finished shower walls were tapped to test for signs of possible damage and none was observed. The walls are in serviceable condition, but some of the tile grout is deteriorated. We recommend repair.

15.6 Shower Enclosure

NOTABLE CONDITION - There is nothing to prevent water from splashing onto the floor. We recommend either a shower curtain or shower door be installed.

15.7 Ventilation

Bathroom ventilation is adequate to control normal moisture conditions.

15.8 Receptacles

The receptacle here is protected by GFCI. The receptacle tripped when tested, which indicates that the GFCI is functioning correctly.

Second Floor Master Bedroom

15.9 Stall Shower

The bottom of a stall shower is referred to as the "shower pan". The pan collects the water and diverts it into the floor drain. Older pans often develop leaks. These leaks can be very small and difficult to detect. When accessible, we temporarily block the drain and fill the pan with approximately two inches of water and check

the exposed framing and subflooring beneath for leakage. Stall showers over finished surfaces are not water tested during our inspection due to the potential of surface damage if there is leakage. Water testing stall showers over finished ceilings is available upon arrangement after a signed liability release is received. Stall showers installed over concrete slabs are not tested because there is no visible framing or other accessible areas to inspect. The shower pan was not tested because the shower is over a finished surface or there is no access to the adjacent wood members.

15.10 Hydrotherapy Tub

The hydrotherapy tub was not filled and operated. Operational testing of hydrotherapy tubs in beyond the scope of our inspection. No representations are provided concerning the function of this tub. If you would like to know if the tub works, was properly installed, and is free of leaks, we recommend you retain the services of a hydrotherapy tub specialist. Care should always be taken in following proper cleaning and maintenance procedures for the hydrotherapy tub circulation system to avoid the growth and transmission of infectious bacteria. The circulation system should be flushed regularly.

15.11 Ventilation

Bathroom ventilation is adequate to control normal moisture conditions.

15.12 Receptacles

The receptacle here is protected by GFCI. The receptacle tripped when tested, which indicates that the GFCI is functioning correctly.

ENERGY

The first step to improving the energy efficiency of your building is to find out which parts use the most energy. We conduct only a very simple energy audit and recommend simple changes. 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 present standards. Professional energy audits generally go into great detail. The energy auditor should do a room-by-room examination of the residence, as well as a thorough examination of past utility bills. Many professional energy audits will include a blower door test. Most will also include a thermographic scan. There are several places where you can locate professional energy auditing services. Your state or local government energy or weatherization office may help you identify a local company or organization that performs audits. Your electric or gas utility may conduct residential energy audits or recommend local auditors.

Insulation

16.1 Walls

The walls are inaccessible and we are unable to determine if they are insulated.

16.2 Floors

The floor is insulated with fiberglass batts.

16.3 Attic

The attic is insulated with fiberglass.

16.4 HVAC Ducting

The HVAC ducting is insulated with fiberglass.

16.5 Water Heater

The water heater does not have an insulation blanket.

16.6 Water Heater Hot & Cold Water Piping

The first four feet of the water heater hot and cold water piping are not insulated.

Dual-Pane Glass

16.7 Windows

The windows are thermal-pane.

16.8 Doors

The exterior glass doors are thermal-pane.

Plumbing Fixtures

16.9 Toilets

The toilets in the building are low-flow and designed to curtail water consumption.

Weather-stripping

16.10 Window & Doors

All of the windows and doors in this building are weather-stripped.

Fireplaces

16.11 Damper

The fireplace has a damper.

Observations and Recommendations

16.12 Reportable Conditions

NOTABLE CONDITION - The floor insulation is installed with the paper vapor barrier reversed. The insulation should be installed with the vapor barrier facing the conditioned interior. Insulation that is installed backwards can result in moisture retention in the insulation and in turn can cause damage to the wood framing and interior wall finishes. Additionally, the vapor barrier is flammable and is considered a potential fire hazard. We recommend this floor insulation be reinstalled with the vapor barrier facing the areas being protected from heat loss and gain.

16.13 General Comments

This building is insulated and is energy efficient.

ENVIRONMENTAL ISSUES

Environmental issues include but are not limited to mold, asbestos, lead-based paint, lead contamination, carbon monoxide, formaldehyde, toxic waste, buried fuel oil tanks, ground water contamination and soil contamination. We will note any visible indications to suggest that any of these issues may be present. Our visual observations, however, are not intended to take the place of detailed environmental testing. We cannot guarantee this property is environmentally clean. If you are looking for verification of the presence or the absence of mold, asbestos, lead-based paint, lead contamination, carbon monoxide, formaldehyde, toxic waste, buried fuel oil tanks, ground water contamination, soil contamination, or any other environmental issue, we recommend you retain the services of an environmental specialist to perform a Phase 1 Environmental Assessment.

Environmental Items

17.1 General Comment

Environmental issues include but are not limited to mold, asbestos, lead-based paint, lead contamination, carbon monoxide, formaldehyde, toxic waste, buried fuel oil tanks, ground water contamination and soil contamination. We will note any visible indications to suggest that any of these issues may be present. Our visual observations, however, are not intended to take the place of detailed environmental testing. We cannot guarantee this property is environmentally clean. If you are looking for verification of the presence or the absence of mold, asbestos, lead-based paint, lead contamination, carbon monoxide, formaldehyde, toxic waste, buried fuel oil tanks, ground water contamination, soil contamination, or any other environmental issue, we recommend you retain the services of an environmental specialist to perform a Phase 1 Environmental Assessment.

17.2 Indoor Air Quality

Outdoors air enters and leaves a building by: infiltration, natural ventilation, and mechanical ventilation. In a process known as infiltration, outdoor air flows into the building through openings, joints, and cracks in walls, floors, and ceilings, and around windows and doors. In natural ventilation, air moves through opened windows and doors. Air movement associated with infiltration and natural ventilation is caused by air temperature differences between indoors and outdoors and by wind. Finally, there are a number of mechanical ventilation devices, from outdoor-vented fans that intermittently remove air from a single room, such as bathrooms and kitchen, to air handling systems that use fans and duct work to continuously remove indoor air and distribute filtered and conditioned outdoor air to strategic points throughout the building. The rate at which outdoor air replaces indoor air is described as the air exchange rate. When there is little infiltration, natural ventilation, or mechanical ventilation, the air exchange rate is low and pollutant levels can increase. There are many sources of indoor air pollution in any home. These include combustion sources such as oil, gas, kerosene, coal, wood, and tobacco products; building materials and furnishings as diverse as deteriorated, asbestos-containing insulation, wet or damp carpet, and cabinetry or furniture made of certain pressed wood products; products for household cleaning and maintenance, personal care, or hobbies; central heating and cooling systems and humidification devices; and outdoor sources such as radon, pesticides, and outdoor air pollution. The relative importance of any single source depends on how much of a given pollutant it emits and how hazardous those emissions are. In some cases, factors such as how old the source is and whether it is properly maintained are significant. For example, an improperly adjusted gas stove can emit significantly more carbon monoxide than one that is properly adjusted. Some sources, such as building materials, furnishings, and household products like air fresheners, release pollutants more or less continuously. Other sources, related to activities carried out in the home, release pollutants intermittently. These include smoking, the use of unvented or malfunctioning stoves, furnaces, or space heaters, the use of solvents in cleaning and hobby activities, the use of paint strippers in redecorating activities, and the use of cleaning products and pesticides in housekeeping. High pollutant concentrations can remain in the air for long periods after some of these activities. If too little outdoor air enters a home, pollutants can accumulate to levels that can pose health and comfort problems. Unless they are built with special mechanical means of ventilation, homes that are designed and constructed to minimize the amount of outdoor air that can "leak" into and out of the home may have higher pollutant levels than other homes.

However, because some weather conditions can drastically reduce the amount of outdoor air that enters a home, pollutants can build up even in homes that are normally considered "leaky." It is, therefore, very important to remember to use natural ventilation and/or mechanical ventilation to have an adequate air exchange rate and, thereby, reduce indoor pollutant levels.

LOCATION OF EMERGENCY CONTROLS

In case of an emergency you should know where the gas, water, and electrical shut-offs are located. You should also know where the sewer cleanout is. Listed below are their locations along with an explanation of how to shut off the gas, water, and electricity and access the sewer line.

Location of Emergency Controls

18.1 Water Shut-off

The main water shut-off valve is located inside the garage. Turn the valve clockwise in order to turn off the water supply to the building. Turn the valve counter-clockwise to restore water supply. This valve can be used during plumbing system maintenance and repair and in the event of an emergency.

18.2 Gas Meter

The gas meter is located at the right exterior. How to shut off the gas: As you face the meter, you will see a pipe running from the ground to the meter. There is a shut-off valve running parallel with the pipe usually located about 6 to 8 inches above the ground. Take a 12 inch or larger adjustable wrench, and turn the valve 1/4 turn in either direction, until the valve is crosswise to the pipe. Please refer to the Plumbing Section Gas Meter Subheading for additional safety information.

18.3 Electrical Meter and Main Panel

The service main panel and meter are located together at the right side of the building. How to shut off the electricity: If your house has fuses - You will find a knife switch handle or pullout fuse that should be marked MAIN. Remove all of the small fuses first, then remove the MAIN fuse. If your house has circuit breakers, open the metal door of the breaker box to reveal the circuit breakers. The main breaker should be clearly marked showing ON and OFF positions. Turn off all the small breakers first, then shut off the MAIN.

18.4 Sewer Cleanout

A sewer cleanout is a capped pipe, which provides access to a sewer pipe. The cap can be removed to access the sewer piping if you have a sewer backup and the line needs to be cleanout to restore functional drainage. There are multiple sewer cleanouts around the yard.

SYNOPSIS

Overall Condition of the Building

19.1 General Condition of the Building

Comparing this building to others of this age and type of construction that we have recently inspected, the general condition of the building is below average.

Notable Conditions

19.2 Number of Noted Conditions

The number of notable conditions present is more than typically discovered. All buildings require routine maintenance to maximize the service life of its systems and components. To view our recommendations for maintenance, please visit our website http://www.marellinspection.com and select maintenance.

Further Reading

19.3 Topics

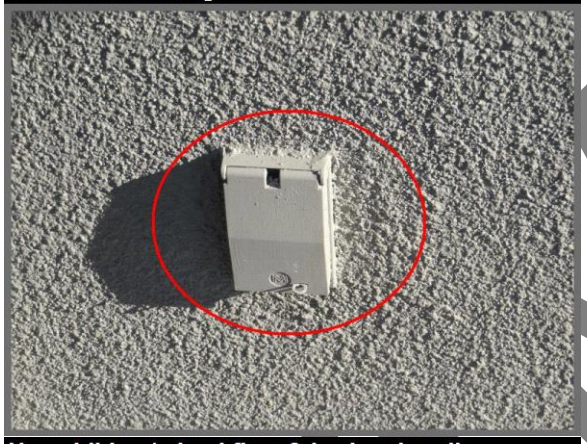
During the course of our inspections, we sometimes identify reportable conditions that require clarification to understand their significance. We recommend you follow-up your inspection by reading about the following topics, which are available at our website http://www.marellinspection.com/ under the Supplemental Resources button.

ARC FAULT CIRCUIT INTERRUPTERS.

PHOTOGRAPHS

The following are photographs that were taken during our site visit. These photographs serve to illustrate some of the Noted Conditions observed during the inspection. Not every Noted Condition or every detail of every Noted Condition is photographed and, therefore, not included in this report.

No in-use watertight cover

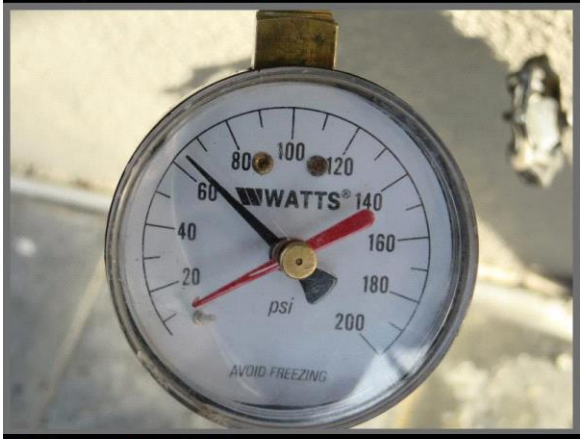


In-use watertight cover

Hose bibb w/o backflow & broken handle

Hose bibb backflow device

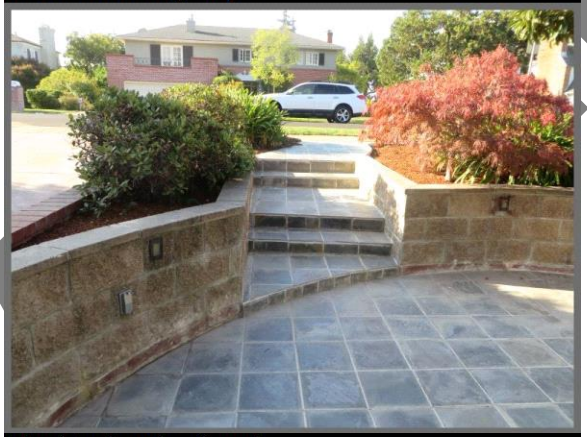
Water pressure reading



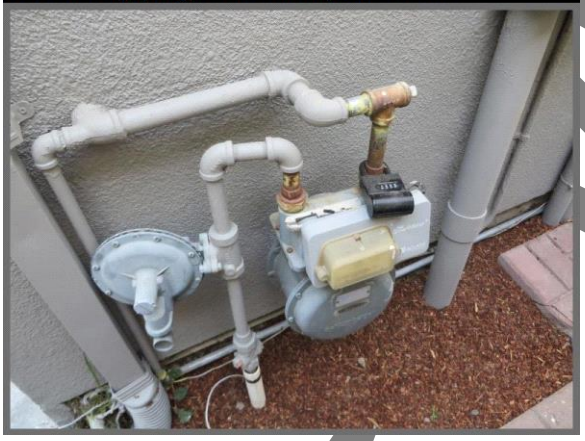
Copper connected to PVC

Vent screen painted over

Nonconforming steps

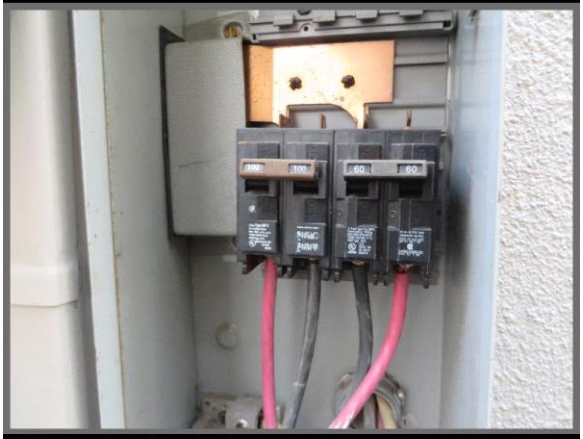


Corroded piping & no earthquake valve



Electrical meter & main

Interior of main



Nonconforming rain cap/spark arrestor

Side yard gate w/o lock

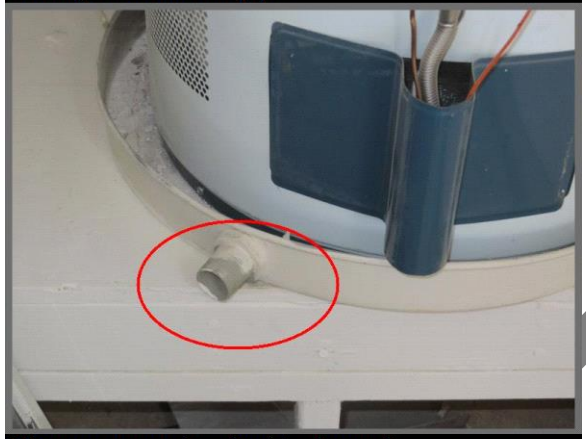
Infrared beam too far above floor

Bathroom steam unit

Water heater data label

No drip leg

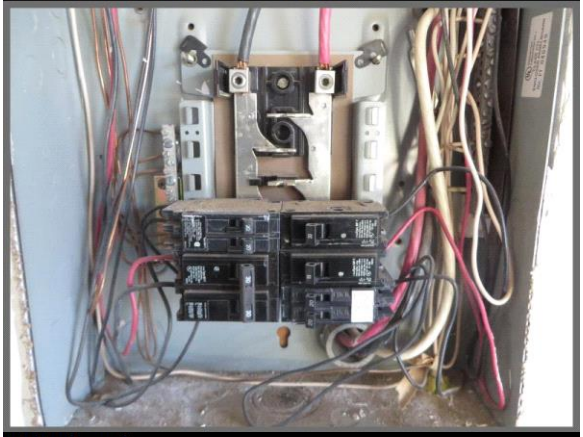
Drain pan w/o drain pipe



Garage subpanel

Wrong screws for electrical panel

Interior view of garage subpanel



Same elevation inside & out @ front door

Failed seals

Failed seal

Missing hardware dining room door

Missing hardware master bedroom door

Utility vault

Sump well and pump

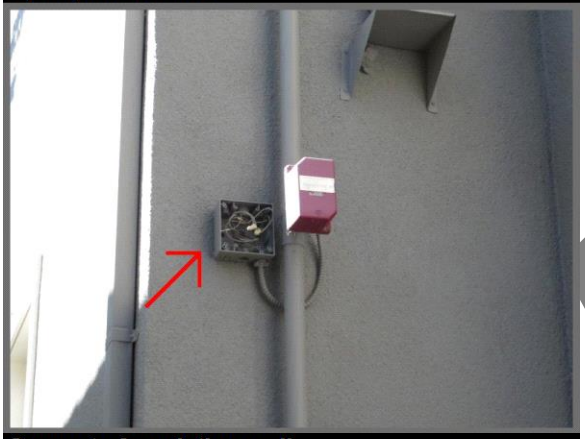
Missing cover at rear receptacle

Sewer cleanout

PTF with wrong joist hangers

Damaged steps

Open junction box



Ancor bolt w/o bearing plate

Concrete foundation wall

Scrap wood in subarea

Crawl space

Intermediate foundtion wall

Standing water in crawl space

Rear crawl space

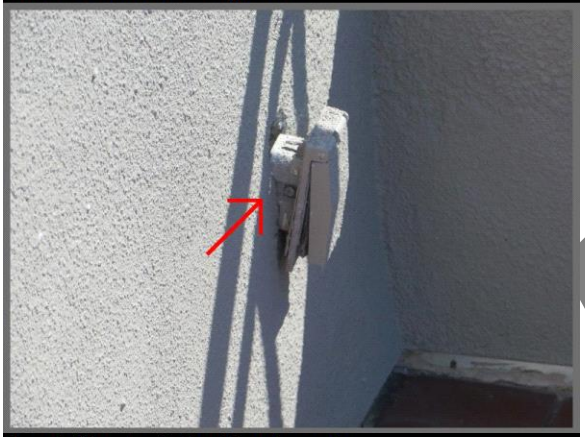
Cracked roof tile

Cracked roof tiles

Cracked roof tile

Cracked roof tiles

Loose outdoor receptacle

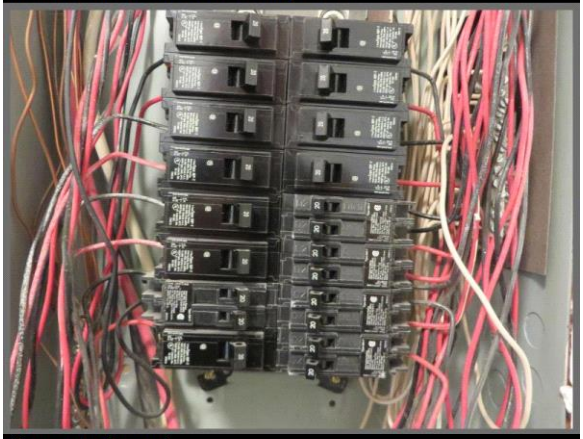


Form wood

Insulation installed backwards

Second subpanel

Interior view second subpanel



Forced air furnace

Corroded vent

CERTIFICATIONS AND AFFILIATIONS

If you have any comments, questions, or concerns, please do not hesitate to contact me.

Thank you,

Greg Marell, ASHI Certified Inspector

American Society of Home Inspectors Member #302
International Code Council Member #0366720
California State Contractors License #353397
Insured Member of the National Association of Residential Real Estate Professionals #191543

ACTION ITEMS

The following contains a list of Action Items. Action Items are Reportable Conditions discovered during our inspection that we believe are most important and should be addressed without delay. Action Items may be a threat to your health and safety, or they may be Reportable Conditions that if not attended to now, could become more significant and cause collateral damage, or they can affect the habitability of the property. Cost is not a factor in their selection and should not influence which Action Items are corrected. All of the Action Items, in our judgment, are in need of attention at the present time. We do not assign responsibility for the correction of Action Items. The decision of who is responsible for the correction of Action Items and who will pay for them is a matter best addressed by you and your agent and/or legal representative. It is the policy of Marell Inspection Services, Inc. not to re-inspect Action Items once they have been corrected. We recommend that all Action Items be taken care of by qualified and licensed individuals familiar with this type of work. These individuals by virtue of their licensing and expertise can warrant the repairs have been completed in a "workmanlike" manner and provide you with written guarantees. The Action Items are not the only reportable conditions that we have identified during our inspection. You should establish your own priorities after reading this report and reviewing all of our recommendations

IMPORTANT: The Action Items Review is not the entire report. YOU SHOULD READ THE ENTIRE REPORT NOT JUST THIS LIST OF ACTION ITEMS. Reading the entire report will provide you with a more complete picture and a better understanding of the condition of this property.

ACTION ITEMS

PLUMBING

Potable Water

3.8 Cross Connections

ACTION ITEM - We discovered several cross connections. We recommend all cross connections be eliminated. Location: The exterior hose bibbs (faucets). Location: The kitchen faucet with a built-in pull-out sprayer.

ELECTRICAL

Grounding and Bonding

4.8 Grounding

ACTION ITEM - The electrical system may not be grounded effectively because the grounding electrode is not fully driven into the earth. We recommend repair so that a full 8 feet of length is in contact with the soil.

4.9 Bonding

ACTION ITEM - The purpose of bonding the above-ground metal piping is to keep everything at the same electrical potential so there is no possibility of shock from simultaneously touching two different piping systems. If the interior piping is properly bonded, then should any of the piping become energized, a circuit is completed and the connected overcurrent protection device trips to interrupt the circuit. Some but not all of the above-ground metal piping is bonded. We recommend the water and gas piping be connected together in a manner that establishes and effective ground-fault path.

AFCI Protection

4.11 AFCI

ACTION ITEM - Arch-fault protection is not present. We recommend a licensed electrician be retained to install AFCI protection in all presently required locations as established by the authority having jurisdiction (AHJ).

Exterior Electrical

4.23 Receptacles

ACTION ITEM - The receptacle covers are not approved for these wet locations. We recommend the installation of approved in-use cover for these wet locations.

ACTION ITEM - The rear receptacle weatherproof cover is missing. We recommend a new cover be installed.

4.24 Wiring

ACTION ITEM - The right exterior junction box is open and should be sealed so that any arching or sparking would be contained within the box.

ROOF

Synthetic Roofing

6.3 Roof Surface

ACTION ITEM - This building's roof covering is a type of fiber reinforced cement shingle. There are many brands and they include; Cal-Shakes, Hardishake, Cemwood Shakes, Permatek Shakes, Fire-Free, Royal Shakes, Cascade Shakes, Trieste Tile, and Pacific Slate. These fiber reinforced cement roofing products claim to be walkable, permanent, impact resistant and usually come with a very long warranty. They are composed primarily of two materials: wood fiber and Portland cement. Wood is a naturally soft and porous material, so when it is exposed to water, it absorbs some of the liquid and expands in size. Portland cement, on the other hand, is extremely rigid and has almost no ability to expand. Thus, when the material is exposed to normal moisture, the fiber absorbs water and begins to expand, exerting pressure on the surrounding cement. The result is cracks in the shake, as well as microbial invasion resulting in continuous and progressive damage to the roof and underlying structure. These product failures occur regardless of installation or maintenance practices. We observed, chipped, cracked, and loose shake. These are classic symptoms of failure and we, therefore, recommend this roof be replaced.

EXTERIOR

Steps & Decks & Porches & Balconies

7.11 Guards

ACTION ITEM - The second story decks' guards construction are nonconforming because they are too short. Although these guards may have been acceptable when they were installed, they are considered a potential hazard by today's standards. We recommend these guards be upgraded by increasing their height. Present building standards require a minimum guard height of 42 inches for any drop off greater than thirty inches.

PARKING

Attached Garage

8.4 Infrared Beam

ACTION ITEM - An infrared beam is also present. This is designed to reverse the door when a person, animal, or an object crosses the path of the door at floor level. The infrared system is serviceable. The door stopped and reversed when the beam was interrupted. However, the beam is installed too far above the garage floor. For maximum protection, we recommend the beam be reinstalled no more than six inches above the floor or as per the manufacturer's specifications.

8.6 Passage Door

ACTION ITEM - The principal means of passive fire protection in a home is by completely enclosing the garage with a fire barrier. Fire barriers include fire doors, walls, and ceilings. Fire barriers play an integral role in managing a fire by interrupting the spread of smoke, other toxic gasses, and the fire itself from one fire zone into another. Fire doors are fundamental to the integrity of fire barriers because any time there is an access portal (such as a doorway) to the living space, a fire barrier is broken temporarily. To minimize the break in protection, fire doors

must be self-closing and have proper latching devices in order to provide as much resistance as possible to the spread of fire, smoke, and toxic gasses. The passage door is self-closing, but it does not latch without using the dead bolt. We recommend the removal of the dead bolt and the installation of a traditional latch.

INTERIOR

Building Interior

9.9 Handrails

ACTION ITEM - There is no handrail installed at the secondary stairway. Stairs with four or more risers presently require a handrail. For an increased margin of safety, we recommend a grippable handrail be installed.

KITCHEN

Kitchen

12.5 Garbage Disposal

ACTION ITEM - The garbage disposal is leaking and we recommend it be replaced.

LAUNDRY

Laundry

13.9 Laundry Sink

ACTION ITEM - The sink trap is leaking and we recommend repair.