

Insider's Guide to Home Inspections

Buying a House Built in the 1950's

Presented by



The Real Estate
Inspection Company

www.SDinspect.com

Table of Contents

<i>Introduction</i>	4
<i>Electrical System</i>	4
<i>Heating Systems</i>	6
<i>Plumbing</i>	7
<i>Insulation</i>	8
<i>Roof</i>	9
<i>Windows</i>	10
<i>Safety Glass</i>	10
<i>Structure</i>	11
<i>What should you do?</i>	11

Buying a House Built in the 1950's

One of the most common questions we receive is “What issues should I be aware of when buying a house built in the 1950's?”

This is a great question and brings up the fact that all homes are not the same. Just like a vehicle, technologies evolve over time. The construction methods and safety items are continuously improving. Older homes may have components that are, well, old.

Introduction

This publication is not intended to dissuade you from purchasing an older home! They certainly have a certain charm that is not present in today's houses. However, your



expectations should match the reality of buying an older house. If you are considering buying a house that was built more than 50 or 60 years ago, there are some things you must consider so that you are not disappointed once you move in. We've inspected lots of these houses only to find that the buyers are surprised at the findings in the inspection report.

Your home inspector should identify certain components of the house even if they are functioning properly. They may be old, consist of old technology, or may not be sufficient for today's modern families. These components include electric service panels, ungrounded circuits, furnaces, insulation, windows, etc.

Electrical System

Prior to the 1950's the only appliances in most homes were a gas range and maybe a gas furnace. Electricity was primarily used for lighting which is why there were so few receptacles installed in those houses. It was adequate for a few lamps.

It was in the 1950's when electricity really became a staple component in a home. “*Better Living Through Electricity*” brought electric appliances to center stage. For the first time



electric appliances were introduced in mass quantities. They were marketed heavily by the manufacturers and the electric utility companies.

Clothes washers, televisions, electric ovens, percolators, - even electric clocks (no more winding) - were all promoted heavily to make life “better”. Many people also felt that electricity was a safer option than gas due to a concern for fires.

The old electrical systems had to be upgraded to supply enough electricity to operate all these new machines safely. Old electric systems often had only a few circuits. After all, they only needed to supply enough power for the aforementioned lights. Bigger appliances draw enough power to require a dedicated circuit that is not shared with the lighting circuit.



The biggest risk with drawing too much current through a wire is that it will over-heat and cause a fire. Fuses were the original safety feature which prevented house fires due to over-heated wires. They contain a thin wire inside that is designed to break if too much current is demanded on a circuit. This prevents the wire inside the wall from over-heating.

From today’s perspective, older electric panels can be under-sized meaning that they were designed to provide enough electricity for a house *in the 1950’s*. The main service panel may only be rated at 60 AMP’s. Back then the average kitchen had only a few countertop appliances consisting of a toaster, a percolator and maybe an electric can opener. When touring an older house you may only see *one* receptacle at the kitchen counter. Those electric systems were modern for the time. They were not designed for all the appliances we use today such as microwave ovens, heavy duty mixers, toaster ovens, etc. Today houses can have 5 TV’s, several computers, cable boxes, stereos, hair dryers, game consoles, ceiling fans, air conditioning, hot tubs, pools – you get the idea.

An electric panel that provides less than 100 AMP’s may not provide enough electricity for your family. If the electrical system of the house has not been upgraded, it simply may not provide enough electricity for the modern family. Make sure your home inspector reports on the type of main panel (fuses or circuit breakers) and on the capacity. If it is less than 100 AMP’s, you will likely want to upgrade the electric panel which can cost a couple thousand dollars or more.

An old electrical system will also not have the safety features of a modern system.



Primarily, the system may not be grounded like a modern system. If you see two-prong receptacles the system is probably not grounded adequately. Proper grounding improves safety and without it you may have problems with sensitive electronic equipment. Again, if you have two-prong receptacles you may need to budget for an upgrade of the electrical system.

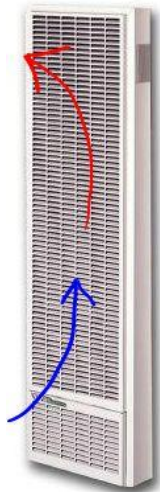
Another very important upgrade to an electrical system is the installation of GFCI receptacles. GFCI stands for Ground Fault Circuit Interrupter. These devices monitor the flow of electricity and if they detect a difference in the supply and return of electricity, or a possible flow of electricity to ground, they will shut off the power. For example, if you touch a bad cord and a plumbing fixture, electricity will flow through you to the plumbing fixture – an electrocution hazard. A GFCI can protect you from this hazard. They are now required within 6 feet of a plumbing fixture, in garages, and at the exterior of a home. Although the seller is not required to install GFCI's it is a good idea to install them for safety. *You can read more about when and where GFCI receptacles are required on our website at SDinspect.com and search "GFCI".*



There have been many other technological improvements to electrical systems. Too many to list here, but the idea is that an old house may need an electrical upgrade.

Heating Systems

Due to the moderate climate in San Diego, we often see original furnaces in old houses. They may still be functional, but these old units are inefficient, noisy and they do not have the safety features of a new unit. Using our "old car" analogy, older models just don't have the safety features or efficiency of a newer model. Some of the features that are now standard safety items include over-heat protection and panel cover shut off switches to protect against fire and Carbon Monoxide hazards.



Old furnaces also use much more gas. These furnaces still have a standing pilot light that stays on year-round instead of electronic ignition. Modern designs also transfer more heat from the burning gas than older units which allowed much of the heat to escape out the flue.

Many older houses do not have a forced air system. Instead, they may have a wall furnace. This type of heater does not have a fan to blow the heated air throughout the house. Instead it relies on convection current to heat the house. Air around the wall heater is heated and rises, and then cool air flows in to take the place of the heated air. This creates a circulation of air but the house is heated un-evenly. The rooms at the outer edge of the house are not heated well, and the interior space where the heater is located often becomes too hot.

If the house you are buying has a furnace that is more than 20 years old, expect a recommendation for replacement – or at least a thorough safety check by a licensed heating

contractor. Furnaces are expected to last 20 years but do last longer in Southern California.

Old heating systems may also include components that contain asbestos. They used asbestos to wrap the ducts and to insulate the system.

Asbestos was and still is an effective fire retardant material. Of course it is now known that exposure to asbestos can be hazardous if you breathe in air borne particles.

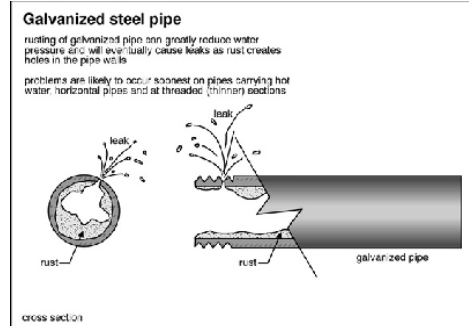
Exposure to asbestos dust is not likely unless people enter the attic. The EPA considers asbestos dangerous when it becomes air borne. This happens when the asbestos is disturbed or damaged. If you will be working in the attic, be sure not to touch, break or otherwise disturb the asbestos.



Determining the presence of asbestos is beyond the scope of a home inspection. But your home inspector should have the knowledge to recognize components that may contain asbestos. Replacing ducting that contains asbestos can incur added costs.

Plumbing

Another system that may be near the end of its useful life is the plumbing system. Older homes were plumbed with galvanized steel pipes which do rust over time. When these pipes rust, it is like having clogged arteries. You may notice reduced pressure and rust-colored water when valves are first opened. Galvanized water systems should be replaced with copper to avoid leaks.



On the drainage side of the plumbing system, cast iron pipes were used for the drain pipes. These heavy iron pipes have a life expectancy of 40 - 50 years. Simple math dictates that these pipes are near the end of their useful life. Often these pipes may look OK, but cast iron drain- lines often rust from the inside and leak.



Upgrading the drainage system can be costly, and this is something that is commonly needed in an older home. The new standard material for drain lines is ABS plastic. This new material is black plastic that does not rust, and since the joints are glued together like PVC pipes, roots are less likely to find their way inside the pipes.

A drain line video inspection is highly recommended for cast iron drain pipes in addition to a home inspection. The drain line video will show if the buried pipes are deteriorated, clogged, or rusted. This is important because replacing a deteriorated drain line between the house and the sewer can be expensive.



Digging up and replacing rusted cast iron drain lines can cost between \$5,000 - \$15,000 depending on the distance, landscaping and hardscape. Do your research about drain line replacement. It can be an unpleasant surprise if you are unprepared to do it.

Insulation

Older homes in San Diego may also be lacking insulation. Prior to the 1960's, many homes in moderate climates did not have *any* insulation as a required feature. It was expensive, and reserved for more affluent home buyers. Insulation has been required since the 1960's, but thousands and thousands of houses in Southern California still don't have insulation. Even if the attic has been insulated, the walls likely are hollow.

The good news is that attic insulation is not very difficult to add, and energy rebates exist for improving the insulation in a house. In Southern California there are generally two types of insulation; blown-in and Batt. Blown-in insulation is the quickest way to insulate the attic. It is blown into the attic like snow through a large hose. Batt insulation comes in rolls or long panels of fiberglass. Performance for Batt and blown-in insulation is very good. However, you will probably find that having blown-in insulation installed professionally is very competitive, and may be cheaper, and certainly faster, than installing Batt insulation.



If the attic does not have insulation, the walls almost certainly do not have insulation. Getting insulation inside the walls is a little more challenging. Holes will have to be drilled between each of the wall studs to allow insulation to be blown into the walls. After filling the walls, the holes will have to be patched and painted.

A well-insulated home will save money and be far more comfortable than an un-insulated home. Without insulation, you will have more dramatic differences in temperature, and will use more energy to heat and maintain a comfortable temperature, than a well-insulated house. Cold spots in a house can actually lead to moisture related problems including mold. That is due to condensation forming on cold walls. An area of a

house that stays cold all winter, such as in closets or behind doors, can develop mold.

Roof

A roof is one of the most expensive components of a home. Hundreds of different materials have been used as roofing material from sticks to plastic, and grass to glass. When you are looking for a home you need to know what type of roofing material is installed, if it was installed correctly and the current condition. A thorough home inspection will include a detailed evaluation of the roof. A roof in poor condition can be a deal breaker, so here are some things to look for that can give you a heads-up about the condition of a roof.

The majority of the houses we inspect range in age from the 1950's to new. The most common roof material we see in San Diego is the three-tab composite asphalt shingle roof. Asphalt shingles are a replacement for old tar-and-gravel roof coverings. While tar was the water-proofing material, gravel was added to protect the tar from the deteriorating effects of the sun. If the gravel was washed away, or brushed off by low hanging branches, the tar quickly deteriorated resulting in a leak.



Asphalt shingles were developed to replace tar-and-gravel. Asphalt shingles are made of oil-impregnated fiberglass material with an aggregate (which looks like kitty litter) pressed into the surface and functions exactly like the old tar that was covered in gravel. It is made in a factory and shipped to the site, thus lowering costs. The aggregate adds color, but its primary purpose is to protect the shingles from UV exposure. Once the aggregate is worn, the shingles deteriorate rather quickly. The majority of asphalt shingles have a life expectancy of 20 or 30 years.

Before making an offer on a house take a close look at the roof. If you see worn areas, it indicates that the shingles are nearing the end of their life. You can also do some simple math to estimate the age of the roof. If you are looking at a house built in 1950, the house is 60 years old. Assuming that the house originally had a 20-year asphalt roof, it was most likely replaced in the early 1970's, and again in the 1990's. If it does not have a new roof, the current roof might be nearing the end of *its* 20 year expected life.

Look around the perimeter of the house for evidence that the aggregate is washing off of the roof. If you see piles of gritty material which is the same color as the roof, you'll know that the

roof is deteriorating.

In San Diego a house can only have three layers of roofing material. If a house built in 1950 has had a new layer of roofing installed every 20 years without a tear-off, it may already have three layers on it. When the current roof material wears out a complete tear-off will be needed. Your home inspector should alert you to this.

Windows

During the 1950's a lot of new products were introduced in the home-building industry. Among these were "modern" windows made of aluminum. These were considered a great improvement from the wood sash windows that had been installed in the 1940's and before.

The old wood windows were often built onsite and had large iron counter-weights in the wall. New designs were introduced such as crank windows and Jalousie windows. While these



window designs allowed for more air flow, they do not seal very well, and are not very secure.

The new aluminum windows were manufactured off site, and were easy for the builder to install keeping the costs down and reducing construction time. These windows also did away with the iron counter-weights in the walls which were difficult to repair when the sash cords broke.

Safety Glass

Original windows and glass doors in older homes most likely do not have "Safety Glass". Instead they are regular plate glass which can shatter into large, sharp pieces. Many injuries and even deaths are caused each year from human impact with glass. These most often occur at sliding glass doors or floor to ceiling windows, but can also occur in bathrooms with glass doors at the tub/shower, at stairwell landings, and adjacent to doors. Old sliding glass doors are considered so unsafe that many municipalities such as Los Angeles require that these doors get replaced or at least upgraded with safety film upon sale of the house. If you will be renting out your house, please be aware that courts have upheld liability claims against landlords for injuries caused by unsafe shower doors and windows.

Reciting the entire building code goes beyond the scope of this article. It is simply to inform you that houses built in the 1950's most likely do not have any safety glass, and it poses a hazard. We recommend that you read a detailed article on [Safety Glazing](#) written by Doug Hansen, author of the authoritative *CodeCheck* series. An alternative to replacing all of the original glass is to have safety film applied to it.

By today's standards the aluminum windows found in older homes are less secure, drafty, and do not provide the thermal efficiency of a double-pane window. Be sure to take a close look at the windows as see if they are acceptable to you. Many incentives and tax credits exist to upgrade windows.

Structure

A lot of homes from this era were built on a raised foundation. This was cheaper than pouring a concrete slab, and made it easy for plumbing to be installed under the house. The typical design included a perimeter foundation of concrete with wood beams and joists supported by wood posts. Today we see many of these "post and pier" systems that are showing the effects of time. Occasionally the dirt beneath the concrete pier has settled and the post no longer provides adequate support. If you notice "springy" floors in the house, settlement may have occurred. This is usually repaired with new or additional posts.



We often report on posts that are no longer in alignment or have been poorly repaired. You should expect some comments regarding the floor structure and the condition, along with an evaluation of any repairs. Some form of seismic reinforcement may be suggested. This can include metal fasteners or diagonal bracing to add rigidity to the floor structure. It also reduces the likelihood of the house falling off of the foundation in the event of a reasonable earthquake. (Of course if an earthquake is large enough, any structure may fail).

What should you do?

Hopefully this guide will help set your expectations of what to expect from a home inspection performed on an older home. We don't want you to be surprised with the items in the report. You should ask the seller if any upgrades have been performed. If not, you may need to budget for upgrades after you move in. Of course this guide cannot cover every scenario as

each house is unique. Hopefully it illustrates some things that you may find, and will help you choose the right house at the right price for your budget.

About the author: Philippe Heller is the president of The Real Estate Inspection Company. His multi-inspector firm performs thousands of inspections a year in San Diego and Temecula. The company uses state-of-the-art testing equipment and the best reporting system available.

To learn more about what should be included in a thorough inspection, please visit www.SDinspect.com or call us at (800) 232-5180.