

Inspecting a House

Before you buy any house, take the time to thoroughly inspect the structure and mechanical systems.

Costly repairs can often be avoided or at least anticipated by a preliminary inspection before a purchase offer is signed. If the house is inspected before a purchase offer is made, you will know in advance if heating equipment, rewiring, or any other costly repairs or replacements will be needed. If defects are found, you do not necessarily have to reject the house. A purchase offer can include a “contingency clause” that identifies what needs to be corrected before the sale is finalized. Another option is to offer a lower purchase price based on the cost of correcting the problems.

After an “offer to purchase” contract is signed (but before a loan is applied for or a title inspection ordered), a thorough inspection should be done. Some lenders require a mechanical and structural inspection by a qualified house inspector. Even if a lending institution does not require such an inspection, you may want one. Reserve the right to cancel or renegotiate a purchase agreement if a professional inspection reveals significant defects.

If you decide to hire a professional inspector, be there when the inspection is done. Follow him or her around. Ask questions. It is important to know what is being checked, why, and the condition of each area.

If you decide to do the job yourself, you might find it useful to study Extension publication HE-440, *Preventive Home Maintenance Guide*. Then review the following list of tools and procedures.

TOOLS

- *Pencil and paper* to record information on the house.
- *Measuring tape* (25 or 50 feet) to measure the dimensions of the house and individual rooms. (The measurements will show whether pieces of furniture will fit into specific rooms).
- *Stepladder*, if needed, for access to an attic.
- *Flashlight* with a strong beam for inspecting the attic, basement, and storage areas with poor lighting.
- *Coveralls* to protect your clothing when inspecting the attic or crawl space.
- *Ice pick or pocket knife* to test the condition of wood structure.
- *Hand level* to check drainage of sidewalks, porches, and basement floor and to see if the floors are level.
- *Screwdriver* to remove electrical faceplates to look for evidence of insulation and the condition of the wiring. (Turn off electrical power at fuse or circuit breaker box first!)
- *Three-prong electrical circuit tester* to test receptacles.
- *Binoculars* for inspecting roof shingles and flashing from the ground.
- *Plumb line and T-square*.

INSPECTION PROCEDURE

Walk around the outside of the house at least twice. As you walk, note specific areas that you need to inspect more carefully when inside the house. Look first at the foundation, drainage, and siding; the second time check windows, gutters, and the roof.

Once the outside inspection is finished, move inside the house. Start in the crawl space or basement and work up through the

Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Employment and program opportunities are offered to all people regardless of race, color, national origin, sex, age, or disability. North Carolina State University, North Carolina A&T State University, U.S. Department of Agriculture, and local governments cooperating.



**North Carolina
Cooperative Extension Service**

NORTH CAROLINA STATE UNIVERSITY
COLLEGE OF AGRICULTURE & LIFE SCIENCES

house to the attic. Take plenty of time to look behind boxes, in dark areas, under cabinets, etc.

The items listed below will help you do a thorough inspection. Use this list as a guide when inspecting any house. The items do not include such personal preferences as interior decoration (color, carpet, window treatment, etc.) or the presence of optional equipment (air conditioning, security system, etc.) NOTE: The items are not listed in the exact order which you might follow when inspecting a house.

Answer YES or NO to as many of the questions as apply to the house you are inspecting.

LOT

_____ Does the slope of the lot prevent water from standing next to the house? Water-saturated soil could indicate the lack of drain tile.

_____ Is there easy and safe access to the lot?

_____ Is the lot safe and convenient?

_____ Are there signs of septic field drainage problems? These may include odor of raw sewage, extremely soggy soil over the drainfield, sewage discharged over the ground or in nearby ditches, broken or cracked white pipes that stick out of the ground, or an alarm flashing or beeping in the house.

SOUNDNESS OF CONSTRUCTION

_____ Are the foundation walls, interior walls, and ceilings free of cracks, especially horizontal ones? Check for door frames that seem to lean in one direction. These conditions might indicate excessive settling.

_____ Does the structure sag? Are exterior walls plumb and square? Do floor or ceiling joists sag?

_____ Are the floor and ceiling joists in good condition? Check the size and condition of the main beams, support posts, and rafters.

WINDOWS

_____ Do all windows open easily and close tightly?

_____ Is the woodwork surrounding all windows a good fit and in good condition?

_____ Are the weatherstripping, caulking, and window pane glazing in good condition?

_____ Are there storm windows and screens? Do they fit properly? Are any missing or broken?

Check windows from both the inside and outside.

DOORS

_____ Do all exterior doors fit tightly and operate easily? Check by opening and closing each door. If one tends to stick, check the fit. It could be swollen from too much moisture. Carefully check the weather-stripping to see if it is in good condition. Check the operation

and security of locks and hinges.

_____ Are the interior doors in good condition or are they warped? They should close and latch properly and easily. Check the door trim for good fit. Knobs, locks, and hinges should operate easily and be in good condition.

PAINT

_____ Are the painted surfaces of the house in good condition? Check for peeling, blistering, and chipping both inside and outside the house. If any of these conditions are present, a paint job may be your first "project."

Keep in mind that paints with significant amounts of lead are common in structures painted before 1978. Paints with lead may present a health hazard to young children who might eat chips from the paint, as well as to other household members.

SIDING

_____ Are the siding materials and the paint or stain in good condition? Peeling paint or white spots on stain could indicate moisture problems. Look for decay, split siding, or excessive rusting of nailheads.

_____ Is there caulking around doors and windows, at corners, and wherever different building materials meet? Is in good condition?

ROOFING

_____ Is the roof in good condition? Note the type of roofing material used. Try to determine its age from the previous owner. Are there broken or missing shingles, or some with curling edges?

_____ Is the ridge beam of the roof straight, or does the roof sag?

_____ Is there evidence of water leakage inside the house? Inspect rafters and insulation in the attic as well as ceilings and interior walls for water stains and discoloration.

_____ Is the flashing in good condition and properly placed to prevent water from entering the attic? Make sure there is flashing around the chimney.

_____ Are the gutters and downspouts in good condition? Are there any signs of leakage? Do downspouts empty away from the foundation?

BASEMENT OR CRAWL SPACE

_____ Is there easy, clear access to the basement or crawl space? If heating equipment or water heater is located there, can it be reached easily for servicing?

_____ Is the basement or crawl space dry and resistant to water penetration? Check for water stains on concrete floors and foundation walls. Damp spots on walls are not necessarily a sign of leakage; they can result from

condensation. Even if floors and walls are dry, a damp or musty smell may indicate seasonal wetness.

_____ Are there foundation vent openings in the crawl space? These openings are especially important if the ground has not been covered by a moisture barrier or if there is a radon problem.

FLOORS

_____ Are the floors level and in good shape?

_____ Does the floor squeak or “give” when you walk over it? A wood floor should be smooth, tight, and free from squeaks. Check the condition of its finish.

ATTIC

_____ Can you get to the attic easily? In some homes, a permanent or fold-down stair provides easy access to the attic, but in other homes access to the attic is through a panel in a closet or hall. In the latter case, a stepladder must be used.

_____ Do you see evidence of moisture, such as discoloration of the rafters; stains on the attic floor, masonry, and pipes; or damp insulation?

_____ Is there adequate ventilation in the attic? Do all plumbing, heating, and exhaust fan vents extend to the outside?

_____ Do you see streaks of light around vents, chimneys or roof seams? These are potential leaks.

INSULATION

_____ Is the house insulated? There should be adequate insulation in the walls, floor, ceiling, and attic. Check the thickness and general condition. The local utility company can provide recommended R-values.

HEATING SYSTEM

_____ Is the heating system in safe and workable condition? Check for a sticker on the furnace or boiler that shows the last time a combustion efficiency test was performed. At what level of efficiency does the burner operate? Turn the system on and note its performance.

_____ Check for adequate air movement in each room if the system is forced air. Check for leaks from a hot water system. If the system is electrical, check the baseboard units to determine whether they are securely attached.

_____ Is the thermostat located in a central location and away from doors or windows?

Replacing a heating system is a major expense, so it may be wise to have the system inspected by an expert. Ask the seller if an utility energy audit has been conducted. Ask for a copy of the report.

ELECTRICAL SYSTEM

_____ Does the service box have at least 100 amperes? Check the quantity and types of circuits for appliances and other electrical equipment to be used. Check to see whether kitchen and laundry circuits are adequate.

_____ Are there enough electrical receptacles to meet your needs? Grounded receptacles have a third, round hole. Use a circuit tester to see if receptacles are wired correctly and are grounded.

_____ Does the house have ground-fault circuit interrupter (GFCI) protection in the kitchen, bathroom, garage, and outdoor circuits? Special GFCI receptacles can be identified by the “test” and “reset” buttons on the face of each outlet; GFCI breakers are labeled in the service box. If this protection is found in an older home, it indicates that the electrical system has been upgraded.

_____ Is there visible electrical wiring in the attic, basement, or garage? Note the type of wire used and its condition.

As with the heating system, you may wish to have a professional check the electrical system.

WATER SYSTEM AND QUALITY OF WATER

_____ Are the plumbing fixtures, especially in the bathroom and kitchen, in good condition? Look for water damage on the bottom of sink cabinets, around the bases of toilets, and on ceilings (below upstairs plumbing fixtures).

_____ Check the water pressure at the faucets. Turn on all faucets and flush all toilets at the same time. How long it takes the tanks to refill under these conditions is a good indication of the water pressure.

_____ Are there a shut-off valves on both hot and cold water supply lines to all sinks? Look for signs of rust and leaks in the water heater. Is there a pressure relief valve?

_____ Is there a private well? Has the water been tested? Acceptable water quality can be a contingency in your purchase offer.

You can obtain information on water testing from your county cooperative extension center.

SEWAGE DISPOSAL

_____ If there is a septic tank, is it in good condition? What is its age? Has it been pumped regularly at 3- to 5-year intervals? Are there any signs indicating faulty or inadequate capacity of drain lines, such as a slowly draining sink, or a toilet that backs up?

APPLIANCES

Do some appliances remain with the house? These may include a built-in oven, dishwasher, garbage disposal, free-standing range, refrigerator, washer, dryer, and window air conditioning unit. All should be tested for efficient and safe operation. Ask the owner for any records of service and repair.

INSECT DAMAGE

Are there signs of wood damage from insects? The most destructive insect is the termite, which eats the interior of studs and joists. Termites may cause much damage before they are detected. Termite inspection is required by most lenders. Has the house been periodically inspected and treated for termites?

Are there piles of coarse sawdust beneath the timbers? This may indicate the presence of carpenter ants. Unlike termites, carpenter ants do not eat wood, but nest in it. They are most likely to attack wood that has already begun to rot. These ants may also be heard within walls and may even be spotted inside the house in the winter. They are black and about 1/2-inch long.

Do you see deposits of sawdust on the floor and small pencil-lead size holes in wood beams and floor joists? This may indicate the presence of the powder-post beetle. To verify, check to see if the wood crumbles when an ice pick or pocketknife is pressed into the beams, floor joists, support posts, and sill plates.

If there is some indication of the presence of termites, carpenter ants, or powder-post beetles, your purchase offer can be contingent on the house being free from infestation by these or other insects. You can ask the seller to pay the cost of a professional insect inspection and treatment; however, inspection is usually paid by the buyer.

THE INDOOR ENVIRONMENT

Certain products or pollutants in the indoor environment can cause health problems. Asbestos, carbon monoxide, and radon are hazards that may be present. Lead, which can be present in water or paint, can cause health problems in children and during pregnancy. And some people are sensitive to certain products or pollutants like formaldehyde and volatile organic compounds. You may want to test for some or all of the following contaminants. Contact your local health department or county cooperative extension center for guidance on testing.

- *Formaldehyde* is often found in particle and other composition board, plywood, paneling, wallpaper, and permanent-pressed fabrics.
- *Asbestos* fibers may be found in thermal insulation, pipe and duct insulation, vinyl flooring, textured paint,

exterior siding, and appliances, stoves, and furnaces. Removal of asbestos can be expensive and should be left to a professional.

- *Carbon monoxide* may be leaking from defective or improperly vented combustion appliances such as furnaces, gas dryers, and gas heaters. These should be checked by a qualified heating system technician. Try to avoid the use of wood stoves or kerosene heaters.
- *Radon*, a colorless and odorless soil gas, can travel from the soil to the foundation and then to the inside of a house. It can have long term health effects. If the house hasn't been tested for radon, you may want to ask the seller to establish an escrow account to cover costs of remediation if necessary.
- *Volatile Organic Compounds* are found in flammable and other household cleaning and maintenance products. You may want these products removed before you take possession of the house.
- *Lead* may be present in house paints used before 1977 and in the piping system at soldered joints. If you have small children and suspect the presence of lead, you may want to have the house checked. Removal of lead-based paint or lead in the water system can be costly.

If you would like additional information on selecting a home, you may wish to request other publications in the *A Home For Your Family* series. Single copies of North Carolina Cooperative Extension Service publications are available free of charge at your county extension center.

Adapted from the following publications:

- John Merrill. 1990. *Buying a Home: The First Time Around*. University of Wisconsin-Extension, Madison, WI.
- James A. McCarty and Joseph Laquatra. 1991. *Basic House Inspection*. Cornell University Cooperative Extension Service, Ithaca, NY.
- Joseph Laquatra. 1991. *Inspecting a Home. Home Buyer's Guide: Financing and Evaluating Prospective Homes*. Northeast Regional Agricultural Engineering Service, Cornell University, Ithaca, NY.

Prepared by
Glenda M. Herman
Extension Housing Specialist
and
Sandra A. Zaslow
District Extension Director

5,000 copies of this public document were printed at a cost of \$, or \$. per copy.

Published by
North Carolina Cooperative Extension Service