

Basement Inspections

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One of the most critical investigations performed by a home inspector happens in the basement. After having viewed the foundation from the exterior, the interior basement inspection provides a closer look at the negative affect of cracks, or how other defects can impact the building. Investigation of the structure underneath the main floor (sub-floor) will determine if it provides adequate support for the upper floors, walls, and roof. There is a tremendous amount of load transferred from the upper structure to the foundation walls and floor system. It is important that special attention is given to assess whether the supporting structure is installed safely by looking at current conditions.

Foundation walls are checked for cracks that show signs of current (or potential) leaking. The general rule of thumb for any foundation crack, regardless of how severe, is to repair it by sealing it, and then to monitor it for further movement or increases in size. Foundation wall cracks can be the result of settlement in the structure, poor drainage on the outside of the building, or faulty installation of the wall, or outside backfill materials. There are different solutions for remediation of severe cracks that may involve excavation and repair of the exterior wall. A qualified professional that specializes in basement foundation remediation should perform this type of repair.

Foundation floors can also experience cracking and the same rules apply. It is important to understand that home inspectors are limited in what they can see in a finished basement. Insulation, drywall and other finishes can prevent the detection of cracks or defects on the inside walls. No one can predict when a crack may leak, therefore all foundation wall, or floor defects, need to be considered a priority.

Visible support beams, floor joists, and columns are inspected and checked for adequate size and support. Where possible, the inspector will assess if upper wall loads are properly transferred to the lower structure members. The correct interaction of the building systems in the basement is the key to them functioning properly. Electrical wires, plumbing pipes and heating ductwork are all installed in (and around) the structure of the building. There are specific requirements for holes and notches in joists and beams that accommodate these items. The inspector will pay particular attention to the installation of support members around openings like stairs and windows.

A basement inspection can help identify possible environmental health issues by looking for signs of rot, boring insects, mold, or water stains on the foundation walls, floors and wood components of the structure. Good drainage and ventilation on the inside of a basement is important in order to decrease the risk of mold growth. Basement drainage systems like floor drains, sump pumps, and window wells are checked for proper function, and/or standing water. Clothes dryers and bathroom exhaust fans are inspected to ensure ventilation to the outside of the building is adequate and properly installed. It is equally important that windows in a basement actually open to guarantee the availability of fresh air for circulation, and combustion to heating appliances.

There are more than 50 items that a home inspector will investigate when performing an inspection of a basement. The basement is a key component in the building system, and can affect the entire building above it. If major defects are detected, a qualified structural or environmental professional will be recommend for further evaluation.

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Our Readers Asked Us . . .

Q . . . could you find out if an access door to the attic is compulsory in the garage. I was told that because of the partial bedroom above the garage that it's not....

A . . . The first things I recommend is to check with your local building department to confirm the requirements in your area.

Openings in any attached garage ceiling should be kept to a minimum to prevent the potential infiltration of carbon monoxide into the living space above. Carbon monoxide is a by-product of running vehicles. Openings, even if they are well sealed, will have a negative affect on the R-value of insulation in that area. Unless there is a specific reason you need an access panel in that ceiling, I suggest you don't have one.

Q . . . My husband and I are about to purchase a resale home and are considering hiring a friend who is in construction to inspect it for us. Your articles talk about the importance of hiring a qualified home inspector. How do we decide which way to go?

A . . . My answer will be biased, but based on industry history and experience, a professionally trained inspector provides you with a well-rounded set of qualifications and knowledge of all building systems. You will get a detailed report outlining the defects of the home, along with a list of priority items, and estimates on costs for remediation. Because home inspectors are members of a professional association, they follow guidelines as to how they perform the inspection. This ensures everything is covered. For more information about the benefits of hiring a home inspector and how to choose one go to www.cmhc-schl.gc.ca



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