

## Home Inspection Committee 2016 Year in Review

- **Unvented fireplaces** can pose carbon monoxide dangers and they can also release considerable amounts of moisture into the air, which can lead to fungal growth. Vented fireplaces that have been properly installed to decrease heat loss are a better option.
- All homes with combustion appliances/equipment should have **carbon monoxide detectors** installed near the ceiling and these detectors should be tested annually. Both carbon monoxide detectors and smoke detectors should be cleaned annually so they function correctly.
- Jay Lawson from Progress Environmental, Inc. spoke about **underground storage tanks**:
  - Although the fund to offset costs for remediation and/or removal is no longer available to residential owners, the state has relaxed some of the guidelines.
  - In the past, any type of release typically necessitated removing the tank and all surrounding soil. The tanks no longer need to be removed – they may be cleaned and filled – then a survey is performed to see if there is anything within 150’ of the tank that could have been contaminated by the release. A notice of residual petroleum is attached to the deed and a public notice is sent to adjacent property owners and local governmental agencies.
  - An unknown is how lenders and insurers will react and whether appraisers will report when these tanks are present.
  - Although a professional may recommend abandoning the tank appropriately in place, it is often buyers who prefer to have the tank and all affected soil removed.
- With regards to **water testing**, home inspectors may recommend testing for homes with wells but otherwise typically the quality of public water in our area is good and very few, if any, homes in our area have lead pipes.
- Keith Rogers spoke about **cultured stone, “adhered masonry veneer”**:
  - Moisture is the greatest long-term threat to wood frame construction.
  - NC code no longer recognizes barrier systems due to their frequent failure; drainage systems are recommended instead.
  - Weep holes are designed to move moisture to the outside and should never be obstructed.
  - The Masonry Veneer Manufacturers Association guidelines should be adhered to during cultured stone installation. Although NC code does not specifically reference cultured stone, the code states manufacturers’ guidelines should be followed whenever possible.
  - Certain locations are more prone to failure than others including: window jambs and sills, the foundation wall base, the roof, decks and doors. These places should be visually inspected to be sure weep screens are in place as well proper clearance.
  - Existing damage may not be visible from the inside though moisture meters can be of assistance in identifying problems.

- **Open discussion on radon:**
  - Some buyers have overblown concerns about radon and may want the level well below the accepted standard of 4.0. Education prior to testing can be helpful.
  - Mitigation systems typically only carry a one-year warranty (although the fans may be warranted for longer.) It is critical to test the systems annually and after any substantial home improvements/modifications. It is also wise to have an independent party test the radon levels immediately after the mitigation system is installed to be certain it is functioning correctly. Consumers should also be sure the installer is certified and that he/she guarantees his/her work, including guaranteeing the radon levels.
  - Protocol requires the test to be placed in the lowest level of the home that can be used regularly, whether finished or not, but ultimately, the buyer paying for the home inspector's services will dictate placement.
  - The EPA and some municipalities offer free radon tests to homeowners. This could give owners a preliminary idea of whether their radon levels are too high.
  - Some lenders may require radon mitigation as part of the real estate transaction.
  - There is a misconception that opening windows will reduce radon levels. While this is sometimes true, it can also increase levels in certain situations.
  - Tightly sealed homes may be energy efficient but they can have a negative effect on air quality, including radon levels, because there isn't enough of an air exchange.
  - It is much less expensive to install a mitigation system as part of the construction process, as opposed to adding it later.
- **Common electrical issues:**
  - "Knob and tube" wiring is common in older homes and found often in the Ardmore area. These systems can get dangerous with age. Also, some are buried in the insulation and can be a fire hazard.
  - "Zinsco" electrical panels found in homes built in the 1970's can also become more dangerous with age.
  - Aluminum wiring, which is also found in older homes, can become loose or overheated at connection points. Homeowners insurance policies may not cover homes with this type of wiring in the event of a fire.
  - Ungrounded outlets should be replaced or at least labeled clearly.
  - Rewiring without removing the old wiring can be a fire hazard.
  - "Double tapping" (two wires going to one breaker) can result in the breaker not tripping if there is an overload.
  - Home Inspectors are required to remove the cover of the electrical panel or state why they couldn't access it (obstacles in the way, unsafe conditions, etc.)
  - Rodents can cause major damage to electrical components.
  - Overhead service entrance cables that are too low can be a safety issue. Although the homeowner may ultimately be responsible for the repair, the utility company should be notified first.

- **Common roof issues:**
  - Manufacturer defects or mistakes made during installation can cause a roof to wear or fail prematurely.
  - Missing or damaged chimney caps, an inadequate number of nails and/or flashing are common defects.
  - Although some home inspectors estimate the amount of life remaining in a roof, this is always a judgment call based on appearance.
  - Attic ventilation is important.
  - Black roof shingles may have a shorter life span because they attract more heat.
  - It is unwise to replace only a portion of the roof at one time.
  - Plumbing boots should be inspected regularly for cracks or wear. These are relatively easy and inexpensive for most homeowners to replace.
  - Gutter guards/helmets/covers are not designed to handle torrential rains. They are also not designed to be 100% debris free.
- **Common HVAC issues:**
  - Incompatibility between systems remains one of the biggest concerns. This can void manufacturers' warranties, impact homeowner's insurance and reduce energy efficiency.
  - Air conditioning condensate should be discharged at a distance from the home's foundation. During humid summer months, eight to ten gallons may be discharged daily. If it is not handled correctly, the foundation could be at risk, the home may have water intrusion and termites may be drawn to the area.
  - All HVAC units should be inspected regularly.
  - Whether or not the vents should be closed or opened on a crawl space depends on the home; exposure and the grade of the yard are some of the factors to take into consideration. Inexpensive humidity gauges can be installed to alert the homeowner to potential problems.
- **Common plumbing issues:**
  - Galvanized pipes are subject to corrosion which can cause leaks and/or impact water pressure. Cast iron pipes have a limited lifespan.
  - CSST pipes are subject to defects; there is currently a class action lawsuit against the manufacturer. Brokers can identify these pipes by their bright yellow, corrugated appearance.
  - Septic systems should be maintained regularly. Home inspectors may note visible issues with the septic system but a licensed septic system inspector should be engaged to inspect the system thoroughly. Buyers should confirm that the system can accommodate the number of bedrooms for which the home has been marketed.
  - Crawl spaces should be inspected annually to head off issues.
  - Hot water heaters should be properly installed and inspected regularly, especially if water usage increases without justifiable cause. Gas hot water heaters should be vented correctly. Tank-less hot water heaters are still an emerging technology so there remain issues with them at this time; these heaters should be flushed annually.
  - Wells should be inspected and the water tested as part of the real estate transaction. Unused wells should be retired sensibly and safely (lenders may require wells be retired in a specific way.)

- **Common attic issues:**
  - R19 insulation or greater is required in attics by some municipalities; replacing this is considered a “repair” item, not an “improvement” item.
  - Home inspectors recommend sealing all air penetrations between the house and the attic prior to adding insulation.
  - Attic ventilation is critical to help the house shed heat and moisture. Properly installed ridge vents are very helpful.
- **Deferred maintenance issues:**
  - Uncleaned gutters are the most common item home inspectors find.
  - Exterior finishes should be regularly inspected for issues.
  - Decks should be maintained regularly. Home inspectors will note all safety items, whether or not the item was required at the time the deck was built.
  - HVAC units, including all filters, are often not maintained or replaced properly.
  - Sinks, toilets and garbage disposals should be inspected to be sure they are functioning correctly and not leaking.
- Issues with **downspouts and gutters** should be addressed immediately as most repairs are inexpensive and can prevent serious issues with drainage/water intrusion in the future.
- **Air and water penetration:**
  - Proper flashing around windows is important.
  - Windows should be properly sealed but never sealed shut. Windows that don’t open easily or at all are a significant safety issue and can have implications with regards to both lending and homeowner’s insurance.
- **Structural issues:**
  - Cut or damaged trusses should always be inspected by a structural engineer. Homeowners should always keep all engineer findings indefinitely.
  - Undulations in a roof may be noted on a report but a certain amount is normal.
  - Floor joists that are cut, improperly placed, or damaged will be noted.
  - Home inspections can reveal serious structural issues even in new construction. New homes rarely if ever have all components inspected by county officials.
- **Environmental issues:**
  - Mold is present in every home although the type and quantity vary widely as does individual sensitivity. An independent mold evaluation can be done if there are concerns.
  - Condensate lines should always drain to the outside to prevent mold.
  - The EPA has very specific guidelines with regards to radon including the requirement to test on the lowest level of a home that could be occupied. Past test results may or may not still be accurate; home renovations and additions can impact radon levels. If levels need to be mitigated, a quality remediation system should be installed and maintained annually.
  - Asbestos may still be present in homes built prior to 1978. Homeowners should have areas that may contain asbestos (including popcorn ceilings) tested prior to any home renovations. The same would apply to lead as well.
  - Underground oil tanks remain a difficult issue and should be evaluated prior to the home being actively marketed (especially now that the fund for removal/remediation is no longer available to homeowners.)
  - Carbon monoxide detectors are critical.
  - All dryers should be vented to the outside: lint can cause environmental issues and is also highly flammable.
  - Bat droppings can be a major health hazard and should be properly removed.