

Bain Property Inspection, Inc. 611 Kastle Road Lexington, Kentucky 40502 (859) 268-0262 email: bainpropinsp@juno.com

Your Home Inspection

Thank you for entrusting Bain Property Inspection to evaluate your new home. The inspection of your home will be meticulous and thorough, and profound care will be taken to lessen the probability of future problems. This inspection does have limitations, however, so read the Inspection Agreement carefully, and please don't hesitate to call if you have any questions.

Important Information

- a) This is a visual inspection, of readily accessible components and areas within the home. Walls aren't opened, nor is furniture moved. If a hole in drywall is concealed behind an armoire in the master bedroom, you may not learn about it until your preclosing walkthrough.
- b) Though it doesn't happen often, it's possible for components of your home to suddenly and capriciously fail following the inspection. The water pump in your car may be working fine today, but that doesn't mean it won't leave you stranded on the highway tomorrow. This inspection and report are not intended to serve as a guarantee or warranty.
- c) Mechanical systems—electrical, HVAC, plumbing, and appliances—are inspected with the manipulation of normal operating controls and the removal of standard access panels.
- d) The presence of mold, mildew, and wood-destroying insects such as termites, if observed and recognized, may be mentioned in your report. We are not, however, licensed nor qualified to inspect for these conditions. If they pose concerns for you, please contact appropriate professionals.
- e) Your roof and basement will be scrupulously checked for leaks, but home sellers will infrequently attempt to conceal water problems by painting over stains on ceilings and walls—especially when leaks only occur during exceptionally hard rainstorms. Read the Seller's Disclosure carefully. If the seller has lived in the house for any length of time, he or she will know whether water problems exist.

- f) Oftentimes, a seller, a seller's Realtor, or a repairperson will posit that a defect mentioned in your inspection report is inaccurate and/or misrepresented. If this happens, call our office and, at no additional charge to you, we'll gladly explain our position to whomever is questioning it.
- g) There are no moratoriums on safety issues, but understand that this inspection is not designed to update your home to modern building codes and/or standards. Electrical outlets within six feet of water sources are now required by building codes to be GFCI protected. But outlets with no ground-fault protection that were installed within six feet of a water source prior to the institution of those codes will not be listed as defects.
- h) Bain Property Inspection wants only the best for you and your new home. If you ever have questions regarding a home we've inspected for you, please feel free to call our office.

Bain Property Inspection, Inc. Kentucky HI License #2058 611 Kastle Road•Lexington, KY 40502•859.268.0262

Client: Sarah Hendricks

Address and Phone Number:

Inspection Address: 220 Perino Road, Lexington, KY Date of Inspection: 10-25-11 Time: 8:30 am Weather: Cloudy Temperature: 49 Degrees

Total Fee \$000.00 Due upon delivery of this report to the CLIENT. If payment is not made following the inspection, CLIENT shall mail payment to Bain Property Inspection, Inc., 611 Kastle Road, Lexington, Kentucky, 40502, within three days.

INSPECTION AGREEMENT

BAIN PROPERTY INSPECTION, INC. hereby agrees to conduct an inspection for the purpose of informing the CLIENT of major deficiencies in the condition of the property. The inspection and report are prepared for the sole, confidential and exclusive use and possession of the CLIENT.

This inspection will be of readily accessible areas of the subject property and is limited to visual observations of apparent conditions in existence at the time of the inspection only. Latent, concealed, or camouflaged defects and deficiencies are excluded from the inspection. No equipment, items, or systems shall be dismantled. No walls shall be opened.

Maintenance and other considerations may be discussed, but they are not part of this inspection. This report is not a compliance inspection or certification for past or present governmental codes or regulations of any kind.

This inspection will not evaluate air or water quality or the presence or absence of environmentally hazardous materials, including MOLD. Nor is this an inspection for the presence of wood destroying organisms such as TERMITES.

The parties agree that Bain Property Inspection, Inc. assumes no liability or responsibility for the cost of repairing or replacing any unreported defect or deficiency, either current or arising in the future, or for any property damage, consequential damage or bodily injury of any nature. THE INSPECTION AND REPORT ARE NOT INTENDED OR TO BE USED AS A GUARANTEE OR WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ADEQUACY, PERFORMANCE, OR CONDITION OF ANY INSPECTED STRUCTURE, ITEM, OR SYSTEM. BAIN PROPERTY INSPECTION, INC. IS NOT AN INSURER OF ANY INSPECTED OR UNINSPECTED CONDITIONS.

Any dispute arising from the interpretation of this agreement or the inspection services provided under it shall be resolved by arbitration conducted in accordance of the American Arbitration Association. The parties shall select arbitrators with knowledge of and experience in the home inspection industry. The parties agree that Bain Property Inspection will be afforded the opportunity to review any condition in dispute before it is altered and if not given that opportunity can offer no further guidance.

It is understood and agreed that should Bain Property Inspection, Inc. be found liable for any loss or damages resulting from a failure to perform any of its obligations, including but not limited to negligence, breach of contract, or otherwise, then the liability of Bain Property Inspection, Inc. shall be limited to a sum equal to the fee paid by the CLIENT for the Inspection and Report.

It is the express and deliberate intent of the person whose name appears beside "Client" below to bind all buyers/clients with an interest in this home inspection, including spouses, to the terms of this agreement. I have read, understand, and accept the terms of this agreement.

Client:	_ Date:
By:	Date

President of Bain Property Inspection, Inc., and Certified Home Inspector

Bain Property Inspection, Inc. Home Analysis Report

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the American Society of Home Inspectors.

Inspection Summary Photos Are Included Within the Report

This is a List of Items in Need of Immediate Replacement, Modification, or Attention:

Structural Elements, including Fireplaces and Chimneys

- 1) The end walls flanking the front porch staircase are mildly deteriorated. It would be prudent to tuckpoint the cracks within the walls to prevent further deterioration during freeze/thaw cycles.
- 2) The front/right portion of the main-level floor system has sustained water damage in the past, likely due to failed clay downspout-extensions. It appears that the clay extensions have been replaced with PVC because of this condition.
- Visible from within the basement, the main-level cast-iron bathtub is not well supported. Reinforcement has been added in the recent past, but it would be prudent to install additional structural supports.
- 4) Visible by removing the ash clean-out, there is debris in the bottom of the chimney into which the furnaces and water heaters discharge their flue gases. The flue should be further assessed by a chimney sweep to make certain it is intact and that the gas appliances will draft properly.
- 5) The front staircase for unit #222 has deflected downward and to the left, rendering the uppermost step too high and a trip hazard.
- 6) The fireplaces in both #220 and #222 are missing their dampers. In #220, the flue has been stuffed with insulation that's charred due to a fire being lighted beneath it.

Basement

- 7) There are multiple cracked window panes.
- 8) The staircase configuration—due to its lack of balusters—is hazardous for small children. Also, the lowermost step is partially detached and out of level.
- 9) Water enters the basement during heavy and/or prolonged rainstorms. Mold growing on the floor joists due to the surfeit of moisture in the basement.

HVAC (Furnaces, Heat Pumps, and Air Conditioners)

- 10) The exterior ambient temperatures prevented me from operating the A/C systems. The lower level condensing unit, at 17 years old, has surpassed its design life and will likely require replacement in the near future.
- 11) The vent in the basement window at the bottom of the staircase provides combustion air for the furnaces and water heaters, and should never be sealed.

- 12) The white tape on the ductwork likely contains asbestos.
- 13) Note: The lone return-air duct for unit #222 is located within the rear staircase. This configuration relies on negative air pressure within the staircase to draw air from #222 via the register at the top of the staircase. This return-air configuration will not allow adequate circulation and dehumidification.
- 14) Regarding unit #220's furnace:
 - a) The condensate drain is detached from the evaporator coil.
 - b) The flue pipe is not sloped properly. The pipe is required to have a minimum ¹/4" vertical rise for every 1' of horizontal run.
 - c) There is an improper gas-line coupling within the furnace cabinet.
 - d) Note: Furnaces typically last 18-20 years. At 16 years old, this furnace may require replacement in the near future.
 - e) The filters aren't properly secured in place.
 - f) Mesh has been placed in the registers, presumably to prevent debris from falling into the ductwork. The openings in the mesh are partially clogged with lint, etc. and require cleaning or outright removal.

Plumbing System

- 15) The stem of the exterior water faucet on the right side of the house leaks when water is running.
- 16) The rearmost exterior water faucet on the left side of the house is inoperable.
- 17) The duplex contains galvanized supply pipes, and also cast-iron and galvanized drains, which are no longer used because they corrode internally and restrict water flow. The galvanized and cast-iron pipes and drains in this house will eventually require replacement.
- 18) The base of the basement commode leaks.
- 19) There are several corroded and leaking pipe couplings in the basement.
- 20) There is a pinhole leak within a cast-iron drain to the left of the basement commode.
- 21) The basement clothes washer drain is improperly sloped.
- 22) Both water heaters are backdrafting flue gases into the basement, a potentially lethal condition. The draft hood for the left heater is partially detached, and the shared flue pipe for the heaters improperly slopes downward.
- 23) The water inlet coupling for unit 220's water heater is corroded and leaking.
- 24) The tub drain for unit #220 is severely corroded and leaks into the basement.
- 25) Within the bathroom for unit #222:
 - a) There is no grounded outlet in the bathroom.
 - b) The tub stopper is inoperable.
 - c) The tub spout shower-diverter knob doesn't fully redirect water flow to the shower-head.
 - d) The sink stopper is slow.
 - e) The sink drain is slow.
 - f) The window lock is inoperable.
- 26) Within the bathroom for unit #220:
 - a) The sink isn't anchored to the vanity.
 - b) There are loose tiles around the tub fixtures.
 - c) The tile floor is cracked.
 - d) The tub stopper is inoperable.

- e) Visible by removing the access panel in the closet behind the tub, the showerhead pipe coupling is leaking.
- f) There is no lock on the window.

Electrical

- 27) Both electrical panels contain service-entry cables that have severely burned and melted insulation on them, likely due to loose connections. The loose cables represent fire hazards and must be remedied at once.
- 28) Within unit #222's electrical panel:
 - a) There is no strain relief clamp on wires entering the upper/left gutter of the panel enclosure.
 - b) Multiple circuits are overfused.
 - c) There is a charred ground wire in the terminal bar.
- 29) In the basement ceiling near the water heaters, #14 gauge and #12 gauge wires have improperly been spliced together in a coverless junction box.
- 30) Within the left garage, both outlets have reversed polarity. In the right garage, one outlet has reversed polarity, and another has an open ground. None of these outlets have been afforded GFCI protection.
- 31) There is an improperly terminated wire within the right garage bay.
- 32) There are multiple coverless junction boxes and improperly terminated wires within the basement. Also, several wires are not properly anchored within the junction boxes with strain-relief clamps.
- 33) There are open-air wire splices in the basement that should be contained within junction boxes.
- 34) The clothes washer outlet in the basement has an open ground. Clothes washers are not safe to operate unless they're plugged into grounded outlets.
- 35) The clothes dryer wire on the basement wall should be enclosed in conduit.
- 36) There are several electrical disconnects in the basement that contains fuses. Many insurance companies will refuse coverage to dwellings that use fuses for overcurrent protection. All of the fused disconnects are overfused, meaning the wires are too small for the amperage capacity of the fuses.
- 37) In the basement, an electrical wire is hazardously installed through HVAC ductwork.
- 38) Within the attic, there are multiple coverless junction boxes, exposed wire connectors and wires with abraded insulation.
- 39) There is no globe on unit #222's front-porch light fixture.
- 40) It would be prudent to install more smoke detectors in the building.
- 41) Many of the outlets and switches in the building are several decades old and have worn contacts. It would be prudent to replace the outlets and switches.
- 42) Bare-bulbed fixtures are no longer permitted within closets due to the risk of fire. All bare-bulbed fixtures should be replaced with lensed fixtures.
- 43) There are exposed electrical wires within the kitchen pantries of units #220 and #222.
- 44) Multiple outlets in units #220 and #222 have open grounds.
- 45) There is an exposed electrical wire in the right/rear bedroom closet of unit #220.
- 46) The front porch light fixture didn't respond to its switch.

Kitchen and Appliances

- 47) In unit #222:
 - a) There is no grounded electrical outlet in place for the refrigerator. Refrigerators are not safe to operate when plugged into ungrounded outlets.
 - b) The lone counter-top outlet is not grounded, which is inherently unsafe.
- 48) In unit #220:
 - a) There is no grounded electrical outlet in place for the refrigerator.

Interior Rooms

- 49) The front door of unit #222 doesn't seal well when it's shut.
- 50) There are multiple painted-shut windows, cracked window panes, and inoperable window locks in units #220 and #222.
- 51) The walls to the right of unit #222's fireplace have sustained minor water damage, presumably due to a roof leak. The walls weren't damp while I was in the building.

Exterior and Grounds

52) Regarding the garage:

- a) The vinyl siding is encapsulated by the exterior grade and also the asphalt driveway.
- b) The wooden siding behind the vinyl is water damaged at its lower ends due to installation below grade.
- c) There is damaged vinyl siding on the sides of the garage.
- d) The roof is near the end of its economic life and will require replacement in the near future. The roof currently leaks at the front/right corner of the left garage bay, and the decking is water damaged as a result. The decking within the rear portion of the right garage bay is also water damaged and requires repairs.
- e) There appears to be wood-destroying insect damage in the front/left corner of the left garage.
- f) The 2" x 4" rafters within both garage bays were excessively notched to accommodate the vehicular doors. Pier and beam systems have been installed to mitigate this condition, but the front portions of the roof framing should be reinforced.
- g) The right garage's vehicular door doesn't open and close properly.
- 53) There is water-damaged brickmold at the lower/left corner of the main-level window located on the front/right of the house.
- 54) Note: The soffits have sustained water damage in the past, which is why they have been encapsulated with aluminum.

Roof and Gutter System

- 55) See above. The garage roof is near the end of its economic life and will require replacement soon.
- 56) The building's roof is leaking around the left/rear sewer vent. The insulation beneath the vent was damp to the touch.

- 57) The roof contains no venting at all. The lack of venting will cause the asphalt shingles to overheat and prematurely deteriorate. Also, with no venting, and inadequate insulation in the attic, the second level unit will be difficult and expensive to cool in the summer.
- 58) The clay-tile roof structures have been heavily caulked where they abut the brick veneer, suggesting past problems with leakage.
- 59) Many of the mesh gutter-guards are detached.
- 60) The clay downspout extension at the left/rear corner of the house is damaged, and water is undermining and damaging the sidewalk near the extension.

Attic

- 61) The attic stairs don't operate properly because the cables are detached from the pulleys.
- 62) The attic floor is inadequately insulated.
- 63) There is a surfeit of fecal matter in the front portion of the attic that should be removed.

Important Information Things you need to know about the house.

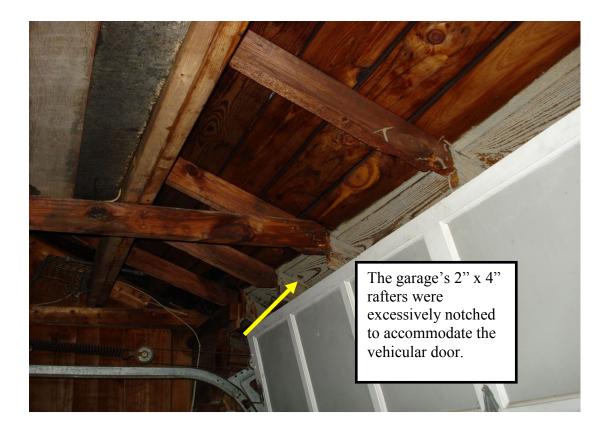
Location of the Main Water Shut-Off Valve: Within the front/right corner of the basement. Both units share the water utility.

Location of the Main Natural-Gas Utility Shut-Off Valve: Beside the two gas meters within the front/right corner of the basement.

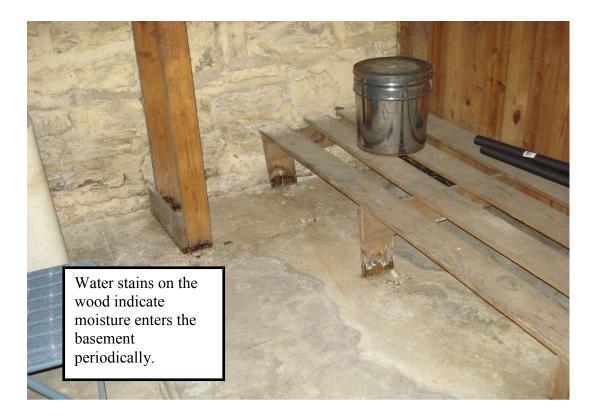
Location of the Main Electrical Disconnect: Within the two electrical meters in the front/left corner of the basement.

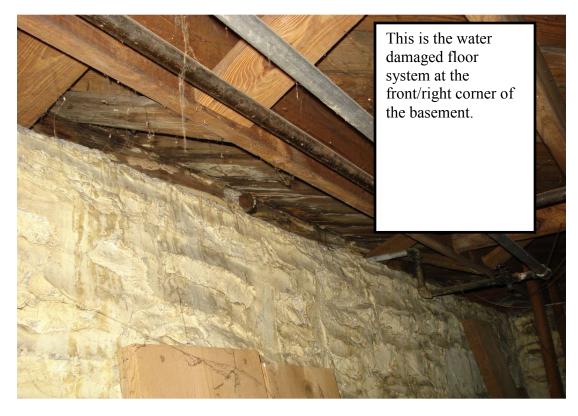
Other Information:



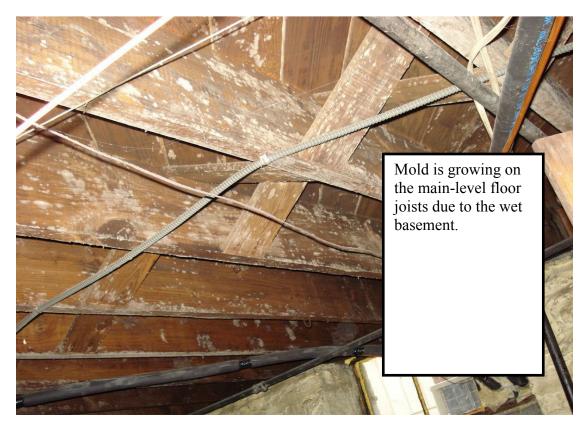


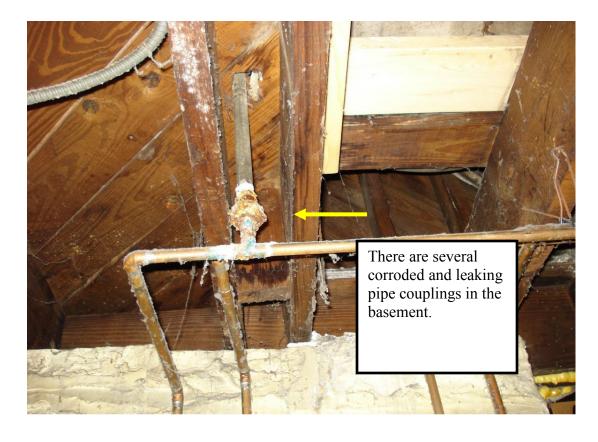


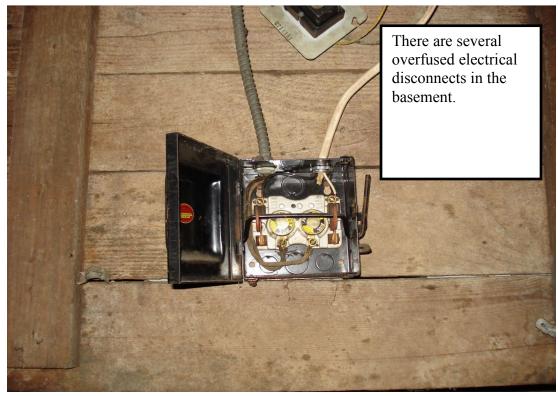




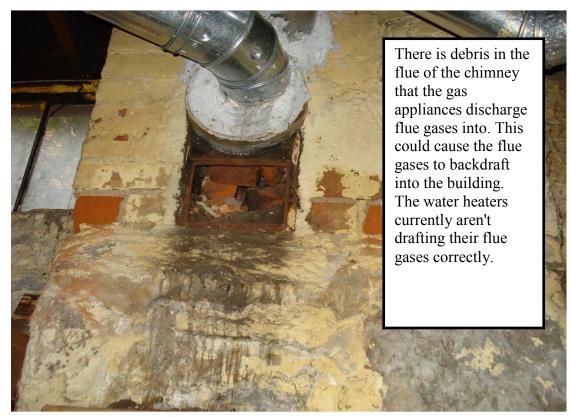


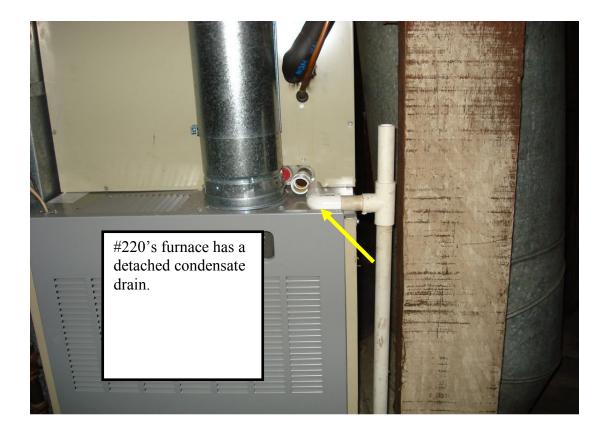


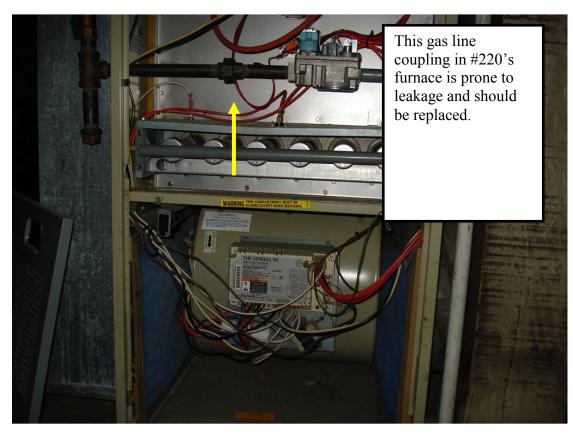




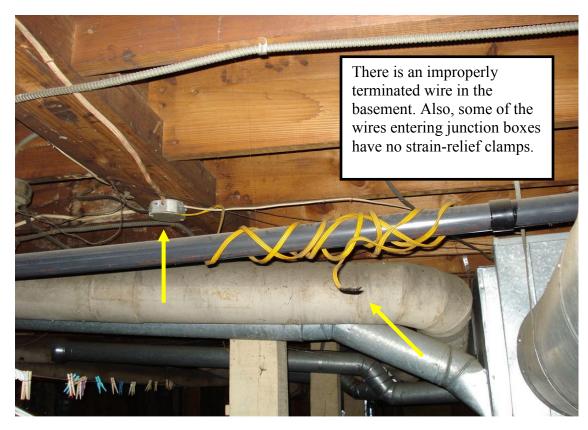


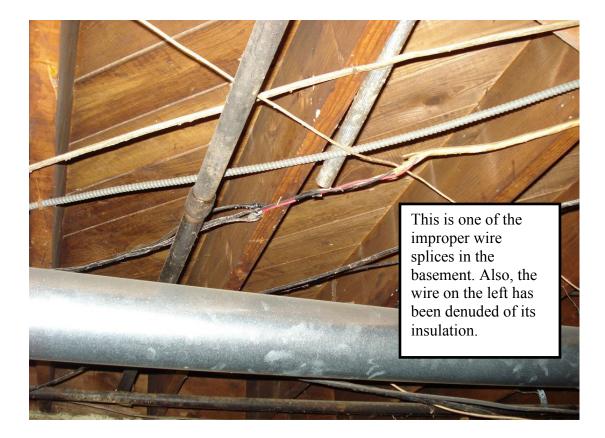


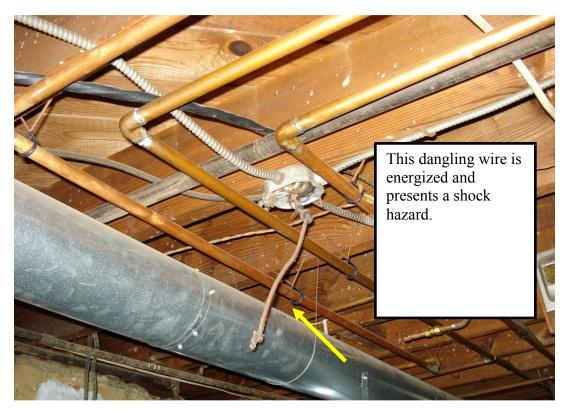


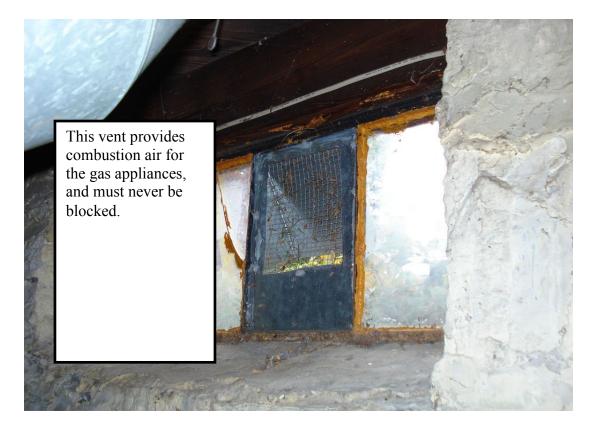


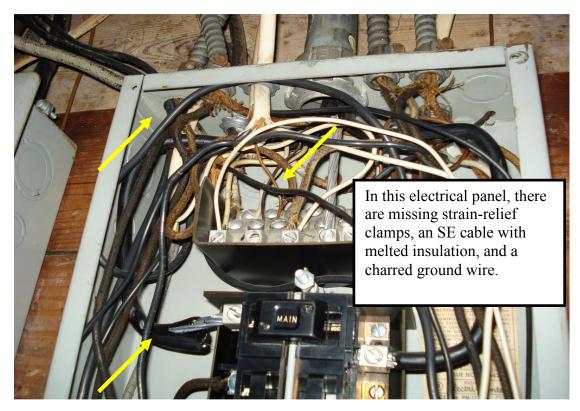


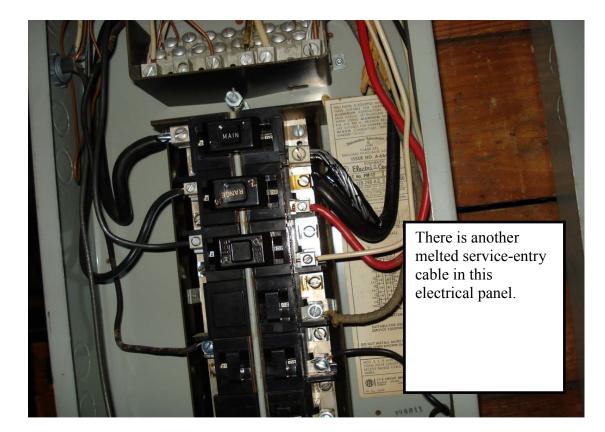


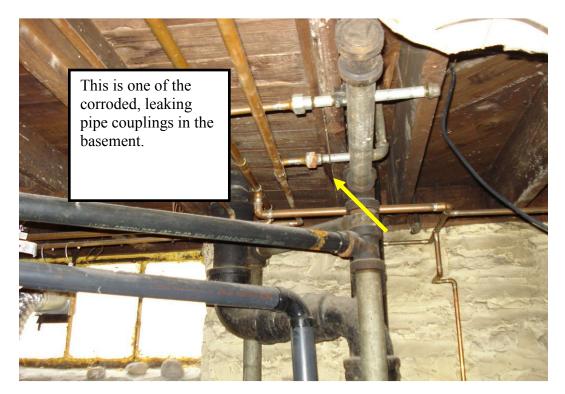










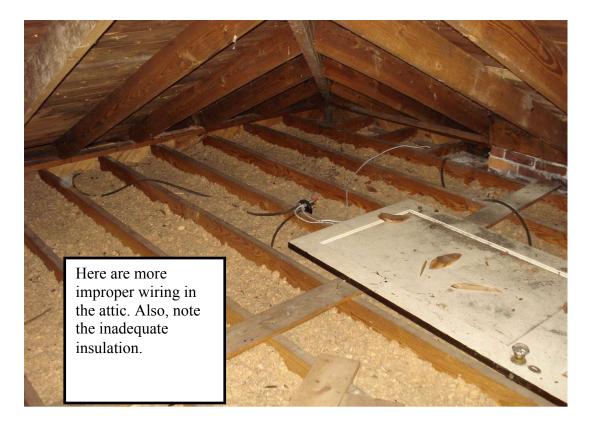


This is one of the coverless junction boxes in which disparate-gauge wiring has been connected.

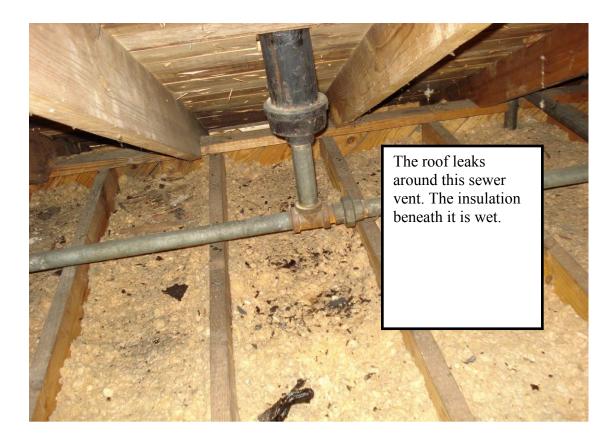


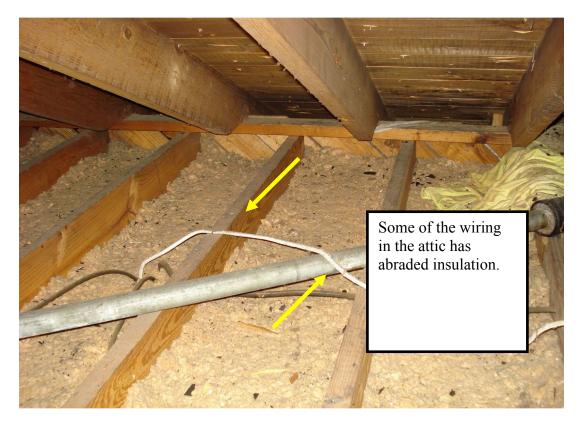


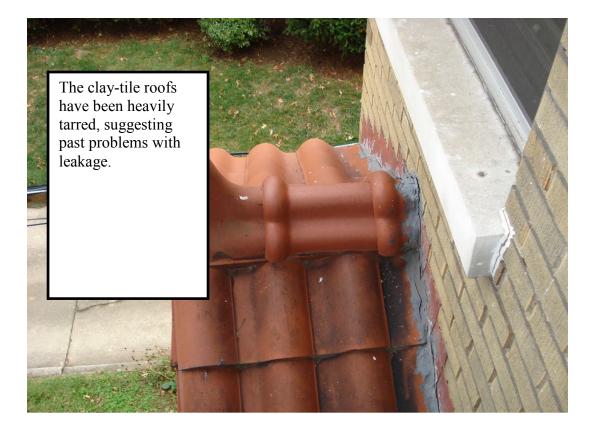




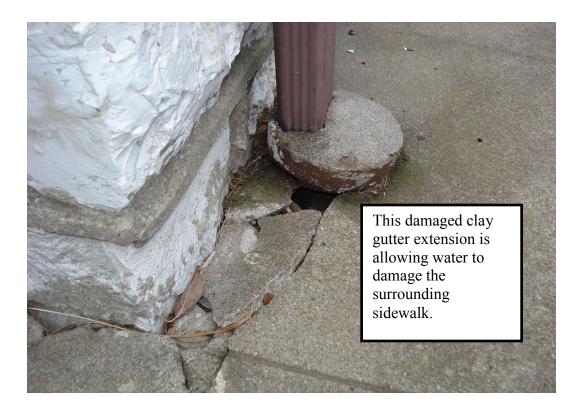












Structural and Mechanical Information:

Structural Details

Type of Dwelling: Duplex Foundation Wall: Masonry fieldstone. Piers/ Columns: Wooden piers. Floor Assemblies: 2" x 10" floor joists.

Comments:

1)

Crawlspace Details:

Comments: 1)

Basement Details:

Comments:

HVAC Details:

IMPORTANT INFORMATION:

- 1) This report should not be misinterpreted as a prediction of the remaining lifespan of the HVAC system(s). Normal lifespans of HVAC equipment are 10-12 years. Some may function far longer; some may fail sooner. Most A/C and heat-pump compressors carry manufacturer's warranties for five years. Defects or failure within HVAC equipment can occur at any time, capriciously and without warning, including the day following a home inspection. It is strongly recommended that you have all equipment cleaned and serviced soon after you move in, and twice a year after that for as long as you own your home. Regular maintenance is crucial for efficient operation and for attainment of a maximum lifespan.
- 2) TESTING COOLING SYSTEMS IN THE FALL AND WINTER—Airconditioning systems cannot be tested if the outdoor ambient temperature has dropped below sixty-five degrees during the previous twenty-four hours. The compressor in the outdoor cabinet is designed to compress gas, not liquid. Low ambient temperatures transform the refrigerant upstream from the compressor into a liquid, which we know from physics class cannot be compressed. If the unit were energized, the compressor would try to compress the liquid refrigerant, and the piston within the compressor would sustain near-certain damage.

System #1

Location, Fuel, Type of System, Capacity, Age, and Area Heated/Cooled: The natural gas, forced air furnace in the rear portion of the basement is one year old and has a 120,000 BTU capacity. This system conditions the second level of the building, or unit #222. Filter Location, Type and Size: The disposable 20" x 25" filter is located within the lower furnace access panel.

Supply Temperature on Heating Mode: 126 Degrees Return Temperature on Heating Mode: 69 Degrees

Exterior condensing unit size and age: The condenser is a 12 year old, 3 ¹/₂ ton unit. Supply temperature: Degrees Return temperature: Degrees

Comments:

System #2

Location, Fuel, Type of System, Capacity, Age, and Area Heated/Cooled: The natural gas, forced air furnace near the front of the basement is 16 years old and has a 120,000 BTU capacity. This system conditions the lower level of the duplex, or unit #220. Filter Location, Type and Size: The disposable, 16" x 25" filters are located within the return air ducts on the sides of the furnace.

Supply Temperature on Heating Mode: 133 Degrees Return Temperature on Heating Mode: 63 Degrees

Exterior condensing unit size and age: The condenser is a 17 year old, 3 ¹/₂ ton unit. Supply temperature: Degrees Return temperature: Degrees

Comments:

Plumbing System

Important Note—Underground piping(such as for wells, sprinklers, septic systems and sewer lines) is not inspected and is specifically excluded from this inspection and report. If the house you are buying has a septic system, you should have it inspected and pumped by a licensed contractor prior to closing. Furthermore, plumbing leaks can manifest at any time, even the day following a home inspection. It is not possible to predict future leaks. Anticipate having leaks, dripping faucets, and/or improperly-flushing commodes repaired occasionally while living in your new house.

General Comments:

- 1) The delta on the water meter is checked to ascertain that the line from the street to the house is intact and not leaking.
- 2) All plumbing fixtures are operated for a minimum of fifteen minutes to check for leakages.

Supply-Piping Description: All visible supply pipes are galvanized iron and copper. Drain/Waste/Vent Description: All visible drain lines are cast-iron, galvanized iron, and plastic.

Waste Disposal: Public sewer.

Water Heater(s)

Water Heater #1

Fuel, Capacity, and age: The natural gas water heater for the main level is 13 years old and has a 40 gallon capacity.

Water Heater #2

Fuel, Capacity and age: The natural gas water heater for the second level is 6 years old and has a 38 gallon capacity.

Electrical System

Main Service Capacity and Location: There are two 100-ampere, overhead electrical services on the front/left corner of the building.

Primary Electrical Panel Location and Capacity of Primary Electrical Disconnect: Each unit has a separate 100-ampere electrical service. The panels are located within the basement. Overcurrent Protection: Circuit breakers and fuses. Electrical Sub-Panel(s):

Comments:

1) All accessible outlets are checked for proper wiring, but furniture and appliances are not moved.

Roof and Gutter System

Important Note—It is not the intention of this report to quantify the lifespan of any roof, or to estimate how long the roof will remain watertight in the future. The inspection and report reflect visible and apparent conditions at the time of the inspection. Neither the inspection nor the report constitute a warranty or guarantee. Your attic will be carefully checked for water stains, and the roof surface will be checked for faulty flashing, missing shingles, etc. Keep in mind, though, that unless severely deteriorated, roofs per se don't leak. Instead, water typically enters an attic around roof protrusions such as sewer vents, chimneys, and flue pipes. Each of these protrusions can develop a leak following particularly-strong wind and/or rainstorm conditions.

Location, Age and Composition: The asphalt shingle roof is approximately five years old. Method of Observation: Physical and visual due to the height of the roof.

Comments:

1)

Location, Age and Composition: Method of Observation:

Comments:

1)

Location, Age and Composition: Method of Observation:

Comments:

Attic

Method of Observation: Physical

Insulation and approximate R Value(A number assigned to a material to indicate its resistance to the passage of heat. The higher the number, the greater the resistivity. Our climate zone requires a minimum R value of 30 in attics.): The attic floor is insulated with approximately three inches of blown-in fiberglass, for an R value of 9. Ventilation: The attic contains no ventilation.

Rafters: 2" x 8" rafters.

Roof decking: 1" x 6" boards.

Comments:

GLOSSARY:

- 1) **ABS—Acrylonitrile-Butadiene-Styrene**—a rigid, black plastic, plumbing pipe used in non-pressured applications such as waste and vent systems.
- 2) **ANCHOR**—Any device used to fasten framing members in place.
- 3) **BALUSTERS**—The vertical members of stair rails, usually decorative and spaced closely together.
- 4) **BALUSTRADE**—The entire stair rail assembly, including the handrail, balusters, and newels.
- 5) **BRIDGING**—Small pieces of wood or metal strapping placed in an "X" pattern between floor joists. They prevent the joists from twisting and squeaking.
- 6) **CAPITAL**—The topmost member, usually decorated, of a column, pilaster, etc.
- 7) **CHIMNEY CAP**—The cap covers the top of the chimney and prevents moisture from infiltrating the structure and slowly deteriorating it. With wood-sheathed-with-vinyl chimneys, the cap is usually a sheet of galvanized metal. Brick chimneys should have concrete caps, however the majority of homes in Lexington have mortar caps, which crack during freeze/thaw cycles and don't perform their intended function.
- 8) **CHORD**—The outer boards of a roof truss which resemble a triangle and contain web members.
- 9) **CLADDING**—A covering over a vulnerable material, such as vinyl cladding on a wood-sash window.
- 10) COLUMN(STRUCTURAL) OR PIER—A vertical structural member—typically masonry, steel, or wood—placed beneath and perpendicular to a beam to provide support. Columns must be positively secured to the ground at their lower ends to prevent uplift and lateral displacement.
- 11) **COMBUSTION AIR AND DRAFT-HOOD DILUTION**—Gas appliances require adequate amounts of oxygen and air for their burners to operate properly, and also to make certain that flue gases flow into the draft hood and up the flue pipe rather than seeping into the living spaces of a house. Without an adequate supply of oxygen and air, negative pressure can develop in a furnace and/or water-heater room and actually suck flue gases down the flue pipe and into the house. These flue gases primarily contain carbon dioxide, which is heavier than air, so the gases gravitate toward the floor, where burners for gas appliances are typically located. Denying the burners oxygen leads to incomplete combustion, which can lead to carbon monoxide production. Gas appliances require fifty cubic feet of air per one thousand BTUs for proper operation.
- 12) **CONDENSATE-OVERFLOW PAN**—Any time a furnace or heat pump is installed above living space, a condensate-overflow pan must be placed beneath the evaporator coil. Air conditioners and heat pumps not only remove heat from a house, they also remove humidity—as much as two or three gallons on a hot summer day. A ³/₄" pipe transfers the removed humidity outdoors or to a drain line, but the pipe sometimes can become clogged. When this happens condensate seeps through the seams of the evaporator coil and can damage the ceiling and other contents of the house below. When the condensate overflow pan is in place, it collects the water that otherwise would have damaged the ceiling. The overflow pan must have a dedicated (or separate) drain-line which discharges in a conspicuous

location, or a float device that attaches to the pan and shuts off power to the furnace or heat pump when water rises to an unacceptable level.

- 13) **CONDUIT**—Typically a length of plastic or metal pipe that houses and protects wiring or other utility components.
- 14) **CONTROL JOINTS**—In a concrete slab, strategically placed grooves to which cracks in the structure will gravitate, maintaining its integrity and aesthetics. Also called a contraction joint.
- 15) **CORINTHIAN CAPITAL**—Characterized by a bell-shaped capital with small volutes and two rows of acanthus leaves.
- 16) **CORNICE**—The entire finished assembly where the walls of a home meet the roof. Also called an eave. Architecturally speaking, the cornice is the upper, often ornate, section of an entablature.
- 17) **COURSE**—One continuous row of building material, such as brick, siding, roofing, or flooring.
- 18) **CRICKET**—A small, false roof built behind a chimney or other roof obstacle for the purpose of shedding water. Also referred to as a saddle.
- 19) DRAIN TRAP—All plumbing fixtures have drain traps. They're normally found beneath the sink, tub, etc. and resemble a letter "U." Add the horizontal section of the drain and the configuration looks like the letter "P," which is why plumbers use the term "P-trap." The purpose of the trap is to hold water and seal out sewer gases—predominantly methane, which is flammable and lethal in large doses—so they can't enter the living areas of a home. Sometimes the water in drain traps can evaporate, especially in the wintertime if a home is heated with natural gas. Homeowners should run water in all sinks and flush all commodes if a home has been vacant for a moderate length of time. This will not only ensure safety, but also prevent any unpleasant aromas from entering the home. "S" traps preceded "P" traps, but they proved ineffective over time and are now illegal to install in Kentucky.
- 20) **FASCIA**—A length of wood or other material attached to the ends of roof rafters or joists to enclose them.
- 21) **FLASHING**—Protection against water or moisture infiltration, typically found around roof protrusions and windows.
- 22) **FOOTINGS(OR FOOTERS)**—The section of the foundation that transfers and spreads the weight of a home to the soil. Footers for a single-story home should be at least eight-inches thick and sixteen-inches wide. For two-story homes, footers should be at least twelve-inches thick and twenty-four inches wide. The concrete used for footers should have a strength of at least 3000 to 4000 pounds per square inch.
- 23) **FORCED-AIR FURNACE**—This is by far the most common heating system in homes today. Heat is generated by natural gas or electricity and a large blower inside the furnace forces cool air drawn from the living area of a home across the hot, outer surface of a heat exchanger, heating the air before sending it back into the home through a system of ducts. Another, separate series of ducts pulls cool air inside the home back to the furnace through return-air registers. This air is reheated in the furnace and redistributed throughout the home as the cycle repeats itself over and over. A heat pump can also be referred to as a forced-air furnace, but an evaporator coil replaces the traditional heat exchanger in the system unless outdoor ambient temperatures drop below thirty degrees. When that temperature drop occurs, heat-pump mode is locked out and the unit operates like a standard electric furnace.

- 24) **GIRDER OR BEAM**—A large beam of steel or wood that supports floor or ceiling joists in the absence of a foundation or other load-bearing wall. Girders are necessary when the distance between load-bearing walls is greater than what the joist can safely span.
- 25) **GRADE**—The exterior earth, mulch, or other material which surrounds a house or building. The grade must never rise above the foundation walls where it can transfer moisture to the wood floor and/or wall systems. Prudence mandates that exterior grade must fall at least eight inches below the floor and/or wall systems, and also that it drops six inches vertically for every ten feet horizontally away from the house to insure water is directed away from the structure.
- 26) GROUND FAULT CIRCUIT INTERRUPTER (GFCI)— GFCI is an acronym for Ground Fault Circuit Interrupter, which is a particular kind of electrical outlet that disconnects electricity should a ground fault, short circuit, or poweroverload occur. Since 1996, building codes require GFCIs in all areas of a home in which the outlet itself, or something plugged into it, may come into contact with water. All garage and exterior-wall outlets must be GFCIs, as well as any outlets which are within five feet of a water source, like those above kitchen or bathroom sinks. GFCIs are similar in appearance to standard outlets with two exceptions. They contain a couple of small buttons marked Test and Reset. Why are GFCIs important? They're much more sensitive and quick to react than regular fuses and circuit breakers, thereby dramatically lessening the risk of shock and/or electrocution should an electrical device plugged into a GFCI come into contact with water. Wiring, light fixtures, and other components of the electrical system are also protected. That old cliché about knocking off your spouse by dropping a hair dryer into his or her bath water? You're likely going to have some explaining to do if the hair dryer is plugged into a GFCI. An additional advantage of GFCIs is that all properly wired and grounded outlets downstream from them are afforded the same protection the GFCI is. Because of this, kitchen-counter outlets may be connected within the same branch circuit, and protected by a single GFCI. This arrangement is common in garages as well, with ancillary outlets--sometimes including exterior outlets--being protected by a lone GFCI. Another common application is wiring the outlets in two or more bathrooms within the same circuit and protecting them with a GFCI in only one of the bathrooms. Homeowners should remember that if an outlet is suddenly inoperable, they should check the controlling GFCI to make certain it hasn't been tripped before calling an electrician. Because of its heightened sensitivity, a GFCI will sometimes interrupt current even though a ground fault or short circuit didn't occur. However, if a GFCI trips on a regular basis, a licensed electrician should be contacted to investigate and correct any problem which may exist. Sometimes, rather than outlets, GFCI protection is contained within circuit breakers in the main panel of a home. These breakers are easy to identify because they have a large button marked TEST. Again, several outlets may be wired within the circuit of the GFCI breaker, so check to see if it has tripped should an outlet mysteriously cease to energize. I previously mentioned the GFCI's Test and Reset buttons, the purposes of which are exactly what they say. When the Test button is depressed, the Reset button should immediately pop out, terminating the flow of current. If it doesn't, the GFCI is malfunctioning and should be replaced. To restore current, simply press the Reset button, which should lock into place. Most manufacturers suggest testing GFCIs every thirty days.

- 27) **HEADER**—A beam placed perpendicular to wall studs above doors, windows, and other openings to carry the weight of structural loads above them. Headers must always be used in load-bearing walls.
- 28) **HEAT PUMP**—To understand heat pumps and how they work, it's first necessary to have a basic grasp of air-conditioning systems. It's actually a misnomer to say that an air-conditioning system cools a house. It actually removes heat from within the home. How? The refrigerant, which travels through a loop of copper tubing between the indoor evaporator-coil and the outdoor condenser-coil, enters the heat pumplocated within the home—in a liquid state. Once inside the evaporator coil, however, the refrigerant expands into a gas. And when gas expands, it absorbs heat. Press the button of an aerosol spray-can for more than a few seconds. The can noticeably cools because expanding gas is absorbing heat from both the can and the air around it. This same process occurs when refrigerant enters the evaporator coil. The refrigerant expands into a gas, and absorbs heat from air in the coil's cabinet before the blower circulates the air back into a home. How does this relate to heat pumps? A heat pump, when set to cooling mode, works exactly like an air-conditioning system. When set to heating mode, however, the heat pump utilizes a mechanical device called a reversing valve, which isn't found in standard air-conditioning systems. The reversing valve, as you may have guessed, reverses the air-conditioning process described above. Instead of refrigerant expanding within the evaporator coil located inside the home, it expands within the outdoor condenser and absorbs heat from atmospheric air surrounding the compressor cabinet. The warmed refrigerant is then transported back into the home through copper tubing to heat air circulating within the heat pump. When outdoor temperatures reach thirty degrees or lower, a heat pump can have difficulty maintaining a comfortable temperature inside a home. Because of this, nearly all heat pumps-geothermal units are common exceptionscontain auxiliary-heat systems that either assist or take over when the heat pump is incapable of adequately warming a home's interior. Most heat pumps in Lexington have electrical resistance back-up heating systems. These heat pumps contain two, three, or four five-kilowatt elements that glow red like coils in a toaster, and which elevate the temperature of air passing through them. When outdoor temperatures fall below a point where the heat pump can no longer effectively warm a house, the auxiliary heating system is energized, one five-kilowatt element at a time, to supplement heat that's being extracted from outdoors. Inside the home, a lightnormally blue or green in color, but sometimes orange-housed within the thermostat glows to notify occupants that the auxiliary heating system is in use. Next to the auxiliary-heat indicator light is the emergency-heat indicator light, which is almost always red. This light illuminates when a lever on the thermostat is set to emergency heat, which is seldom necessary unless one of the heat-pump components needs servicing. Heat pumps—when auxiliary heat systems are not in use—are less expensive to operate than electric- or natural-gas furnaces which create heat rather than transfer it. A standard electric furnace, for instance, only produces 3,400 BTUs per kilowatt of electricity consumption. A heat pump, however, consuming the same kilowatt of electricity, will produce nearly 10,000 BTUs.
- 29) HVAC—An acronym which stands for Heating, Ventilating, and Air Conditioning.
- 30) **JOIST HANGERS**—Metal brackets designed to hold joist ends. Using hangers is usually faster and easier than toenailing joists, but also more expensive.

- 31) **JOISTS**—Parallel framing members installed horizontally to support floor and ceiling loads.
- 32) **KNEE WALL**—A wall of less than full height, usually found in attics. They're also found in basements when a builder wants to create more ceiling height by stacking a knee wall on top of a standard wall.
- 33) **LEDGER BOARD**—A strip of lumber anchored to a beam, girder, or rim joist on which the floor joists rest for support.
- 34) **LINTEL**—A horizontal support member above an exterior wall opening for a window or door. Lintels are necessary to support the weight of the exterior veneer (normally brick) above the window or door.
- 35) **LOAD-BEARING WALL**—A wall that supports structural weight. Identifiable by having overlapped or butted ceiling joists running perpendicularly above it.
- 36) **LOAD**—The weight of a given component or area of a home.
- 37) **NEWEL**—The central post or column that supports a handrail at the bottom or at the landing of a staircase.
- 38) **OPEN GROUND**—Used when referring to electrical outlets. Grounded wiring wasn't required in houses until the early 1960's, which is why outlets in older houses often have sockets with only two vertical slots and no third slot beneath them to accommodate the ground prong of a three-prong plug. Oftentimes, the old two-slot outlets discolor or become stained by paint, and owners unmindfully replace them with three-slot outlets, which give the false—and hazardous—impression that an appliance or device that requires grounding is properly grounded when, in fact, it is not. Outlets with open grounds are dangerous, and they must be replaced with outlets containing old-style, two-pronged sockets. Furthermore, three-prong converters—normally orange or gray in color—should not be used because they only function properly if the outlet's junction box is grounded, which it very seldom is.
- 39) **PIER AND BEAM**—The pier and beam method of construction uses foundation walls and piers that support girders or beams. This term is normally used to describe homes that have crawlspaces.
- 40) **PIER**—A column designed to support concentrated loads. Piers typically support the beam at critical points in a pier-and-beam (or crawlspace) home, but are also used in homes with basements. With slab-on-grade foundations, the footers are constructed beneath each corner and are often referred to as piers.
- 41) PITCH—The angle of the roof slope, measured as X inches per 12" (x/12). Roof pitches commonly range from 4/12 to 8/12. Stated simply, the pitch is the distance (first number of the fraction) the roof falls for every twelve inches (second number of the fraction) of its run. To calculate a roof's pitch, place a carpenter's level positioned level on the roof line, and measure out 12" on the level. From that 12" point, measure down to the roof surface. This figure (i.e. 4" to 8") is the first number of the pitch.
- 42) **POLARITY**—In electrical language, polarity means the neutral wire in an electrical appliance connects with the white neutral wire in the electrical system and the hot wire in the appliance connects to the black hot wire in the system. Polarized electrical plugs prevent homeowners from switching the hot and neutral wires around when they plug a cord into an outlet. The wide blade that connects to the neutral wire won't fit into the narrower slot reserved for the hot wire. The round prong on a three-prong plug fits only into the round opening in the outlet, which automatically positions the hot and neutral blades. Polarized plugs reduce the chance of electrical

shock because the connections cannot be reversed, intentionally or accidentally. With alternating current, electrical appliances work perfectly well if the connectors are reversed, however the neutral wire—which carries no electricity—is seldom as well insulated as the hot wire. In a house lamp, for example, the hot wire is at the bottom of the brass socket where it makes contact with the end of the light-bulb to energize it. The neutral wire, though, is connected to the spiral tube the light bulb screws into. The only thing separating the spiral tube from the brass socket is thin, cardboard insulation, which can become brittle and crack as the lamp ages. It doesn't matter if the spiral tube comes into contact with the brass socket as long as the neutral—which carries no current—wire is connected to the spiral tube. But if the polarity were reversed, the brass socket of the lamp would carry 120 volts and shock anyone who touched it.

- 43) **PRESSURE-TREATED LUMBER**—Lumber which has been saturated with chemicals that make it resistant to water damage and wood-destroying pests. The chemicals are injected into the wood under pressure, hence the term. Most building codes require pressure-treated lumber for sill plates, unless the plate is eight or more inches above ground level.
- 44) **PVC—Polyvinyl Chloride**—a rigid, white plastic, plumbing pipe used in nonpressured applications such as waste and vent systems.
- 45) **QUOIN**—The corner of a building, often distinguished by decorative masonry work. The plural quoins is used to describe the actual stones or bricks which form the corner.
- 46) **RAFTERS**—Sloping, parallel framing members that form the shape of the roof. Normally 2"-by-6"s.
- 47) **RIDGE BOARD**—A horizontal member of a roof frame that's placed on edge at the ridge and into which the upper ends of the rafters are nailed.
- 48) **RIDGE**—The highest point of a roof that has sloping sides. If one imagines the roof as a triangle, the ridge is the uppermost point.
- 49) **RIM JOIST**—The outer framing members of a floor system. They normally resemble a square or a rectangle and enclose the ends of floor joists.
- 50) **ROOF DECKING**—The plywood or OSB affixed to the exterior of rafters or trusses, on which the shingles are nailed. In older homes, the decking is often ¹/₂" or 1" boards.
- 51) **ROOF TRUSSES**—Pre-assembled sections of framing wood that form the shape and structure of the roof. Normally installed on 24" centers.
- 52) **SEDIMENT TRAP**—A perpendicular length of pipe on a gas-supply line into which sediment or other debris will fall into rather than clogging the burner of a gas appliance.
- 53) **SEWER VENT**—All homes have at least one, and sometimes several, sewer vents. Have you ever lowered a straw into a glass of soda, put your finger over the upper straw opening, and then removed the straw from the soda to find that the liquid stayed in place? The soda can't flow out of the straw because of an air vacuum at the top of the straw. Lift your finger off the straw, however, and the soda flows freely back into the glass. Without a sewer vent in a home—which is a vertical tube similar to a straw—vacuums would be created and sink, laundry, and commode waste wouldn't flow through pipes into the main sewer line. The only way the drainage system would operate properly is if a vacuum created by down-flowing water sucked

water out of a sink or commode drain-trap. The affected trap would then act as a vent, but it would also allow hazardous sewer gases to enter the home.

- 54) **SLAB ON GRADE**—Slab foundations are normally found in areas that have expansive soil, like we have in Lexington. The high clay content of our soil can cause problems with settling and inadequate surface-water drainage. Slabs are less expensive to build than crawlspaces or full basements, and require much less time to install. Slab foundations, which rest on a bed of gravel to facilitate drainage, are normally five to seven inches thick and are reinforced with steel bars and steel mesh. In instances where the building site is not relatively flat, a footer must be poured separately from the slab and terraced or stepped down. Afterwards, a foundation—usually composed of concrete block—is constructed to an appropriate height so the concrete slab can be poured.
- 55) **SOFFIT**—The underside of eaves and rakes. Soffits are often vented to draw air into the attic.
- 56) **TEST CAP**—The plumbing rough-in occurs before interior drywall, finish floors, and plumbing fixtures are installed. Following the rough-in, plumbers test a home's vent and drainage system so any needed repairs can be effected at that time, and not later, when drywall or other interior finish systems may have to be removed to access the lines. Black rubber caps—or Gem Caps—are placed on all the sewer vents and an air-pressure test is performed to make certain there are no leaks in the drainage and/or vent system. If there *are* leaks, sewer gases will almost certainly enter the home, so they have to be repaired immediately. Unfortunately, sometimes the plumbing contractor forgets to perform an air-pressure test, or bungles the job, and a drainage system will fail the county or city plumbing-inspector's test. When that happens, drywall almost always has to be removed and later repaired to access the improperly sealed vent/drain line(s).
- 57) **WEEPHOLES**—Small gaps left in the mortar between masonry(brick, concrete block, or stucco) that allow moisture and water trapped behind the masonry to drain out.

Important Notices and Disclaimers

1. General Scope

1.1 Purpose

The purpose of the inspection is to identify whether or not the items designated for inspection are functioning consistently with their intended purpose.

1.2 Standards

The Inspection is performed as a visual/non-invasive walk-through survey in accordance with the standards of practice of The American Society of Home Inspectors.

1.3 Technical level

An inspection under these standards is not comprehensive, technically exhaustive or invasive.

1.4 Structures included

Unless otherwise specified, this inspection only covers the building and attached structures serving entry/exit doors. This excludes other features of the property such as fences and detached structures (decks, garages, outbuildings etc.) including those with a roof cover attached between them and the subject building.

1.5 Scope of time covered

The inspection is based solely on the property conditions present at the time (moment) of the inspection. Conditions may exist but go unreported if they were not present or exposed for view at the moment I inspected the house.

1.6 Exposed items only

Opinions are based on what was readily accessible and easily discernable visually. **1.7 Access**

I don't generally move any obstructions such as furniture, storage, personal items, free standing appliances, vegetation, insulation etc. The client or his or her representatives are responsible for arranging with the owner, seller or tenant access to items of inspection particularly attic and crawlspace openings/hatches, electrical panels, water heaters and heating and cooling systems.

1.8 Environmental conditions including energy efficiency/comfort and IAQ concerns

An evaluation of the energy efficiency of components and systems is not performed nor is comfort and IAQ concerns or environmental hazards such as asbestos, Radon, mold or buried fuel tanks etc.

1.9 Compliance

The inspection does not serve as a compliance inspection to determine conformance with governmental regulations or verify if indeed an item is installed and functioning per the manufacturer's, designer's or engineer's installation instructions or specifications. While I am knowledgeable of past and present codes in general, whether or not the home is in compliance is not the purpose of this inspection.

1.10 Certifications or warranties

My opinions in this report should be considered as preliminary and representative as they were created under time constraints and other limiting circumstances and without the benefit of indepth investigation. **No certifications or warranties are provided** that the items of inspection are free of hidden or latent defects, fire/life/safety hazards or will continue to perform satisfactory. There are no certifications or warranties provided concerning an items actual condition, quality, value or serviceability.

1.11 Copyrights & confidentiality

Bain Property Inspection reserves all rights. Unauthorized reproduction, distribution and use of this report in its entirety or in part is strictly prohibited. This report is not assignable or transferable and is confidential.

2.1 Structural In most cases a substantial portion of the structural assemblies and foundation system are not readily accessible or exposed to view and condition and performance must be judged indirectly and assumptions made as to condition and performance etc. Therefore my inspection is not a certification or warranty that the foundation or that the structural components are otherwise free of any defects. If certifications or warranties are required then we recommend that you contact a qualified professional in that area.

2.2 Exterior and Site The identification of damage, deterioration, wood destroying insect infestations or deficiencies in workmanship and construction of the wall assemblies including those portions of the wall cladding system, doors and windows not exposed to view are outside of the scope of this inspection. Also outside of the scope of this inspection is a determination of proper installation of windows and doors retrofit or otherwise, weather resistive barriers and flashings around wall perforations such as doors and windows and proper installation of those portions of wall claddings not exposed to view. Concerning the identification of double pane windows with interpane seal leakage, although it is my practice to try and identify such windows I do not warrant that I have indeed identified all such windows. Note signs of interpane seal leakage may come and go and subtle signs may go unnoticed.

2.3 Roof This inspection does not serve as a certification of the water tightness of the roof.

2.4 Plumbing My inspection does not include an evaluation of the main water supply line to the house. I only observe the exposed portions of the interior plumbing system. I don't disturb insulation on the plumbing.

My inspection does not warrant against backups or hidden and latent defects. The interior condition of the DWV system cannot be evaluated by a visual/non invasive inspection. As a point of disclosure the clothes washer drain plumbing is not evaluated and older 1.5" lines may not keep up with the discharge rate of newer clothes washers. Also I don't test the functionality of floor drains. The evaluation of the interior condition of the main building drain inside the house and the sewer line outside of the house is best done by sending a camera down the line. As a rule of thumb any home with a cast iron building drain built before the 60's should be inspected with a camera.

2.5 Electrical I don't perform a comprehensive evaluation or a compliance inspection of the electrical system. I don't do load testing of overcurrent protection devices (breakers or fuses etc.) and I don't verify circuit directories. My observations are non-invasive. For example fixtures and devices are not disassembled or insulation or other items moved to view the wiring system. If comprehensive evaluations are desired then a licensed electrician should be consulted.

2.6 Heating systems My opinion is based on quick operation of the heating system or independent heaters and does not include an evaluation of the adequacy and efficiency of the system. A visual inspection cannot determine if the heating appliances are truly working as intended. Often owners and conditions do not permit extended operation of installed systems therefore you are advised that a licensed HVAC contractor should perform any comprehensive evaluations to determine fitness of gas, oil or electric furnaces or heat pumps for your purchase consideration. Such equipment cannot be properly evaluated without the use of test and inspection equipment and special training.

2.7 Cooling system A superficial visual evaluation is performed of the readily accessible exposed to view portions of the central air conditioning equipment and distribution system if present. Systems are not operated when temperatures are below 65 degrees as doing so can cause damage in some cases to the compressor. Note a superficial visual inspection and quick operation cannot determine the fitness (adequacy & efficiency) of a central air system alone. Often owners and conditions do not permit extended operation which may uncover problems. Therefore you are advised that a licensed HVAC contractor should perform any comprehensive evaluations to determine fitness of the air conditioning equipment and performance for your purchase consideration. Such equipment cannot be properly evaluated without the use of test and inspection equipment and special training. Such evaluations generally take 30minutes or longer by themselves.

Concerning tile & stone floor coverings either present or anticipated, consideration for brittle rigid facades such as tile & stone are almost never made in the design of a spec home and often times not even in a custom built home. The designer has usually only made consideration for flexible coverings such as carpets and vinyls. The demand for tile and stone has far exceeded the pool of available skilled tile setters and the work is often performed by DIY's and unskilled labor. The quality of a tile or stone installation is only as good as its substrate which I can't visually inspect. If you are planning a tile or stone installation we recommend following or specifying the latest edition of the "Handbook for Ceramic Tile Installation" published by the Tile Council of North America, Inc. and the ANSI A108/118/136 specifications for the Installation of Ceramic Tile.

3. GENERAL EXCLUSIONS & OUT OF SCOPE ISSUES AND ITEMS

The Kentucky certified home inspector is not required to observe:

- Storm windows, storm doors, screening, shutters, and awnings;
- Garage door operator remote control transmitters;
- Geological conditions;

• Recreational facilities (including spas, saunas, steambaths, swimming pools, tennis courts, playground equipment, and other exercise, entertainment, or athletic facilities); or

- Detached buildings or structures.
- Water conditioning systems;
- Fire and lawn sprinkler systems;
- On-site water supply quantity and quality;
- On-site waste disposal systems;
- Foundation irrigation systems;
- Whirlpool tubs, except as to functional flow and functional drainage;
- Swimming pools and spas;
- Solar water heating equipment.
- State the effectiveness of anti-siphon devices and anti-backflow valves;
- Determine whether water supply and waste disposal systems are public or private;
- Operate automatic safety controls;
- Operate any valve except toilet flush valves, fixture faucets, and hose faucets;
- Low-voltage systems except to report the presence of solenoid-type lighting systems;
- Security system devices, heat detectors, or carbon monoxide detectors;
- Telephone, security, TV, intercoms, lightening arrestors or other ancillary wiring that is not a part of the primary electrical distribution system; or
- Built-in vacuum equipment.
- Insert any tool, probe, or testing device inside the panels;
- Test or operate any overcurrent device except ground fault circuit interrupters;
- Dismantle any electrical device or control other than to remove the covers of the main or auxiliary

distribution panels

- the interior of flues;
- Fireplace insert flue connections;
- Humidifiers; or
- The uniformity or adequacy of heat supply to the various rooms.
- Operate automatic safety controls;
- Ignite or extinguish solid fuel fires;

• Operate cooling systems when weather conditions or other circumstances may cause equipment damage;

- non-central air conditioners;
- the uniformity or adequacy of cool-air supply to the various rooms.
- Operate a representative number of cabinets and drawers.

• paint, wall paper, and other finish treatments on the interior walls, ceilings, and floors.

• draperies, blinds or other window treatments.

• Clocks, timers, self-cleaning oven function, or thermostats for calibration or automatic operation;

• Non built-in appliances; Refrigeration units that are not installed; or

• Test for Microwave leakage. Operate appliances in use; Operate any appliance that is shut down or otherwise inoperable.