TOTAL PICTURE HOME INSPECTIONS
CONFIDENTIAL HOME INSPECTION REPORT

TOTAL PICTURE
HOME INSPECTIONS

9/24/2024

1111 Any Street
Hometown, VA 22124

Inspection Prepared For:
John Q. Public

Inspection Performed By:
Total Picture Home Inspections
Inspector Bob Lam
Phone: (703) 201-2121
www.TotalPictureHomeInspections.com

6-Point Inspection

Report Introduction

Total Picture Home Inspections appreciates the opportunity to conduct this inspection for you. Please carefully read your entire Inspection Report. Please contact Total Picture Home Inspections after you have reviewed your report if you have any questions. Remember, when the inspection is completed and the report is delivered, Total Picture Home Inspections is still available for any questions you may have.

A standard home inspection is a non-invasive, visual examination of the accessible areas of a residential property, performed for a fee, which is designed to identify defects within specific systems and components, that are both observed and deemed material by the inspector, as defined by the current version of the standards of practices as required by the Virginia Department of Professional and Occupational Regulation (www.dpor.virginia.gov/sites/default/files/boards/ALHI/A506-33REGS_HI.pdf, Part IV). For your safety and liability purposes, we recommend that appropriate, unbiased, insured contractors performing within the scope and capacity of their service evaluate and repair identified concerns and defects.

This specific home inspection is being performed at the request of the home owner (seller) or authorized agent of the owner or a prospective home buyer or authorized agent (both parties herein referred to as the client). At the request of the client, the home inspection will cover six named areas, herein referred to as the 6-Point Inspection, described as follows and in further detail throughout this report: Structure, Roof, Electrical, Plumbing, HVAC (Heating, Ventilation, Air Conditioning), and Moisture Intrusion. The 6-Point Inspection is limited to only these areas, with no inspection of SOP areas outside of these areas.

The 6-Point Inspection goes beyond the standard home inspection for these specific areas which primarily identifies defects within specific systems and components. The 6-Point Inspection also assesses the positive attributes of the systems and components noting functions working as intended with myriad identifying pictures of these systems and components. The client is presented with an in-depth look at what many home buyers consider the most important systems in their buying decision for a home. Should system defects be identified in a seller inspection, the client is provided the opportunity to repair or replace the defect prior to the final distribution of the 6-Point Inspection report.

6-Point Inspection Named Areas

- **Structure** – Examination of the home's structure with specific attention to the foundation (basement, crawlspace, slab) looking for any foundation shifts or degeneration. The inspection will include a visual inspection of associated beams, bearing walls, joists, columns/piers/posts and subflooring. Detached garages are not inspected.
- **Roof** – Examination of the roof alignment, roofing materials (e.g., shingles), and flashing for protruding roof components to include the chimney(s) and heating and

plumbing vents. The condition of guttering, downspouts and downspout extensions which move water away from the home will be evaluated and reported. The condition of the attic roof sheathing and trusses/joists as observed from the home's attic will be noted.

- **Electrical** – Examination of the power supply to the home from external utility lines to the main and any secondary service panels to a representative sampling of home outlets and electrical switches. Electrical capacities (volts, amperage) will be noted.
- **HVAC** – Condition and manufacturer, age/capacity of heating, ventilation, and air conditioning (HVAC) equipment will be evaluated.
- **Plumbing** – Examination of units/lines that convey different states and conditions of water throughout the house. This includes identifying public vs private water, identifying the water shutoff valve, condition of pipes and tubes, water pressure, examining observed water leaks, and an external examination of the **water heater**.
- **Moisture Intrusion** – Examination of home for potential moisture intrusion from external and internal sources, whether from the foundation, roof leaks, exterior ground level walls or plumbing fixtures. The presence of mold-like substances will be sought, and reported, in areas where moisture intrusion is noted.

Properties being inspected do not "Pass" or "Fail." - This report is based on an inspection of the visible portion of the noted areas and may be limited by vegetation and possessions. Depending on the age of the property, some items like GFCI outlets may not be installed; this report will focus on safety and function, not current code. This report identifies specific non-code, non-cosmetic concerns that the Inspector believes may need further investigation or repair/replacement. At the discretion of the inspector, this report may present advice and recommendations as to how to address a specific concern or how to extend the longevity of a system or component.

What Really Matters In a Home Inspection

The home sales process can be stressful for all parties, but the home inspection program can reduce this stress as the function seeks to provide an accurate picture of the state-of-the-home. The home inspector will spend an appropriate amount of time evaluating the systems and components of the 6-Point Inspection, reporting their observations. This includes a written report, photographs and what the inspector says about specific elements of the inspection to include noted strengths and recommendations for replacement, correction, or remediation.

The inspector will report on his observations of the structural soundness and functioning of systems as well as issues that need to be recognized and addressed. Issues generally fall into two primary categories: 1) areas that are Defective (D) where a system or component is unable to perform its intended purpose and/or there exists a safety hazard where a relative degree of danger may exist; and, 2) areas of Marginal (M) concern where a system or component is not performing at the intended level or there exists a defect that may lead to major, cost prohibitive defects, perhaps warranting the classification of Defective. Systems or components that are classified as Not Present (NP) may by their very absence be classified as Deficient or Marginal rather than Not Present (e.g., the absence of GFCI outlet protection around running water). All concerns/issues noted in the Deficient and Marginal categories should be corrected.

Most of the inspection, and resultant report, will be the acknowledgement of products or systems as functioning in a normal manner, and where applicable life expectancies. These are nice to know about and are often categorized as "A" or Acceptable, as noted below. Some items will not be inspected as they may be hidden or blocked by personal belongings or other obstructions or where the access area is too small to traverse. These items are categorized as "NI" or Not Inspected. Each of these categories are explained further below and will be identified throughout this report as Icons, also as noted below.

Acceptable – This item was inspected and is in acceptable condition for it's age and use. Comments are provided for clarity and emphasis. It does not indicate a defect or a problem. Comments may include suggestions for improvement.

Marginal -- Marginal represents a defect or condition of a system or component that, in the inspector's opinion, should be repaired, replaced or evaluated by an appropriate expert for remedial action to achieve optimal performance and avoid future problems. The system or component is not fully functional. Safety concerns not labeled as Deficient are labeled as Marginal.

Defective – Item needs immediate repair or replacement. It is unable perform its intended function. Defective designates a defect or condition that, in the inspector's opinion, is significant and/or a serious safety concern, or may require a significant expense to correct. Action is strongly recommended.

Not Inspected - Items with this rating were not able to be (fully) inspected because access was blocked off or covered.

Not Present -- Item was not present or not found, thus not inspected.

To further assist the reviewer in understanding various acronyms, abbreviations and trade-specific terms, this report contains a unique pop-up glossary feature. When you see words highlighted in yellow hover your mouse over the term. The definition or a tip about the item will appear. A written glossary is featured at the end of this report.

Report Considerations

This report is intended only as a general guide to help reviewers make their own evaluation of the overall condition of the property and is not intended to reflect the value of the premises nor make any representation as to the advisability of purchase. The report expresses the personal opinions of the inspector, based upon his visual impressions of the

conditions that existed at the time and date of the inspection only. The inspection and report are not intended to be technically exhaustive, or to imply that every component was inspected, or that every possible defect was discovered. No disassembly of equipment, opening of walls, moving of furniture, appliances or stored items, or excavation was performed. All components and conditions which by the nature of their location are concealed camouflaged or difficult to inspect are excluded from the report.

Smart and connected devices are not included as part of this inspection. These systems may include but not be limited to access control, audio systems and controls, specialized lighting controls and outlets, security systems and cameras, home automation, along with many other smart/connected devices. Without detailed information about the smart and connected devices throughout the home, adjustments/changes to these systems may cause the systems to cease to function or function in a manner not intended. It is recommended a further review of these systems be conducted by a contractor specializing in smart connect homes and automation.

The inspection report should not be construed as a compliance inspection of any government or non-governmental codes or regulations. The report is not intended to be a warranty or guarantee of the presence or future adequacy or performance of the structure, its systems, or their component parts. This report does not constitute any express or implied warranty of merchantability or fitness for use regarding the condition of the property and it should not be relied upon as such. Any opinions expressed regarding adequacy, capacity or expected life of components are general estimates based on information about similar components, and occasional wide variations are to be expected between such estimates and actual experience.

It is certified that your inspector has no interest, present or contemplated, in this property or its improvement and no involvement with trades people or benefits derived from any sales or improvements. To the best of the inspector's knowledge and belief, all statements and information in this report are true and correct.

CONCLUSION

Total Picture Home Inspections is proud of our service, and trust that you will be happy with the quality of our report. Every effort has been made to provide an accurate assessment of the general condition of specific "systems" of the property and its components and to alert you to any noted significant defects or adverse conditions. However, we may not have tested every outlet or looked in every closet as we use representative sampling in some areas. Also, because our inspection is essentially visual, latent defects could exist. We cannot see behind walls. Further, the Inspector is not a Structural Engineer or other professional whose license authorizes the rendering of an opinion as to the structural integrity of a building or its component parts. Therefore, you should not regard our inspection as a guarantee or warranty. It is simply a report on the general condition of a property at a given point in time. Future events cannot be predicted.

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Report Summary

The following summary of Defective and Marginal findings has been noted as consequential by the home inspector and is highlighted (and repeated) within the report for the client's attention. The findings can vary in significance from an existing major problem to a minor problem that can grow to become a major problem. Safety hazards of varying degrees of significance are also noted.

The summary is not a complete listing of all the findings in the report and reflects the opinion of the home inspector. Please review all pages of the report for a detailed review of the home inspection. All suggested repairs should be done by a licensed tradesman or qualified professional. It is recommended that you obtain a copy of all receipts, warranties, and permits for work performed.

Two categories of findings are noted: Defective (RED) and Marginal (Blue). Defective issues need immediate repair or replacement as the system or component is unable to perform its function as intended. Action is strongly recommended. Marginal issues represent a defect or condition of a system or component that should be repaired, replaced, or evaluated for remedial action to achieve optimal performance and avoid future problems.

If no Defective or Marginal entries follow, the home was inspected without any defective or marginal issues, or any such issues were addressed and resolved prior to the inspection report being finalized.

Inspection Details

1. Inspection Date & Time

Date: September 24, 2024
Start Time: 12:00 PM
Completion Time: 3:30 PM

2. Inspection Address

1111 Any Street
Hometown, VA. 22124
38°50'50" N, 77°50'50" W
380 Feet Above Sea Level

3. Attending Inspector

Bob Lam, Total Picture Home Inspections
DPOR License 3380001847
DPOR License Expiration: 5/31/2025
InterNACHI 21020833

4. In Attendance at Inspection

Client/Owner present

5. Residence Type/Style

Detached Single Family Home

6. Bedrooms & Bathrooms

No. of Bedrooms: 5
No. of Bathrooms: 4 Full, 2 Half

7. Occupancy

Occupied - Furnished

8. Age of Home/Year Built

Built 1988, 36 Years Old

9. Square Footage

5,694 Square Feet

10. Lot Size

.84 Acres

11. Front of Home Faces

Northwest

12. Weather

Temperature: 66 Degrees Fahrenheit
Sunny (September 21)
Rain (September 21)

System Disconnects

Ready Reference For Shutting Down Your Utility Service Systems

Knowing the location of your home's system disconnects is crucial for safety and convenience. Disconnects allow you to quickly and effectively shut off power to specific circuits, whether for maintenance, repairs, emergencies, or simply to reduce energy consumption. They also help ensure that work on electrical systems is done safely by de-energizing the circuit, preventing accidental shocks or fires
These systems are:

Main Electrical Service Disconnect -- Perhaps a separate box but likely a disconnect resident in the Main Service Electrical Panel. The service disconnect is used to shut off power to the entire residence, including any electrical subpanels. There are many reasons to use this switch to include repairs to the main service panel or breaker repair (replacements/additions), to a problem detected in one or more areas of the electrical system which extends beyond a specific breaker/fuse. The disconnect may actually be up to six breakers in the panel box. A residence may have multiple Main Service Electrical Panels.

Main Water Supply Service Disconnect -- Located where the main water line from the utility company or well enters the residence. It can be a Gate Valve (circular handle) or a Ball Valve (stem). Reasons to shut the main water supply off include repairing a water leak in one of the water lines or replacement of a connecting line to one of the water usage units (e.g., commode, sink).

Water Heater Service Disconnect -- There are several reasons to shut down your water heater: if there is a leak; in the unlikely event of lost water pressure to the home; and when you know you won't be home for a lengthy period (e.g., extended vacation). Shut down processes are different for gas and electric water heaters.

Fuel Service Disconnect -- For HVAC equipment and water heater other than those units operating solely on electricity, this service disconnect shuts down the fuel entering the residence. For natural gas systems, the service disconnect is located at the gas meter. For propane and fuel oil systems, the service disconnect is located on the equipment where the tank is located. There are many reasons to use this disconnect to include shutting down the system while making repairs or equipment replacement, or the detection of a leak somewhere within the system. You will also find unit specific disconnects located on the fuel lines entering a particular unit that uses the noted fuel.

Compressor Disconnect -- Located within direct eyesight of the compressor, the service disconnect is used when repairing/replacing the exterior compressor unit or when a problem is detected somewhere within the AC/Heat Pump system to include noise from the fan or compressor to an overflowing condensation pan when a condensation line is stopped up. The service disconnect is generally a fuse which is simply pulled out, or a breaker which is either on or off.

Furnace/Heat Pump Air Handler Service Disconnect -- Located in proximity and generally within direct eyesight of the furnace/heat pump air handler. The service disconnect is an electrical disconnect which shuts down all electrical power to the furnace/heat pump air hander, thus rendering the furnace/heat pump air handler inoperable, even if a gas or fuel oil furnace. The disconnect may have a labeled red plate or a regular plate with Emergency Shutoff labeled/written on the outlet. The disconnect is used when there are furnace repairs or problems noted with the furnace/heat pump air handler (e.g., smoke). This disconnect should not be confused with a light switch as turning the switch off shuts down the furnace.

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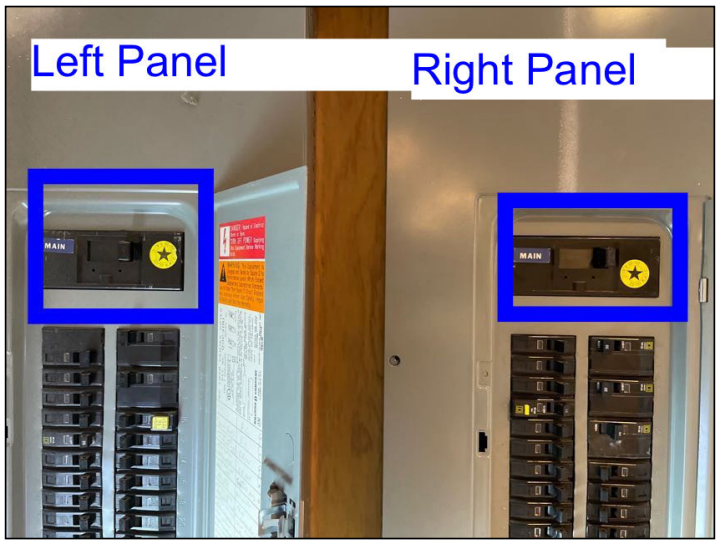
1. Electrical Service Panel

A Main Electrical Service Disconnects reside inside each of the two Main Electrical Service Panels located in the basement family room near the fireplace. Each is a single breaker. To disconnect the breakers, use hand movement to flip the switches.



Main Service Disconnects

2. Main Water Supply Disconnect

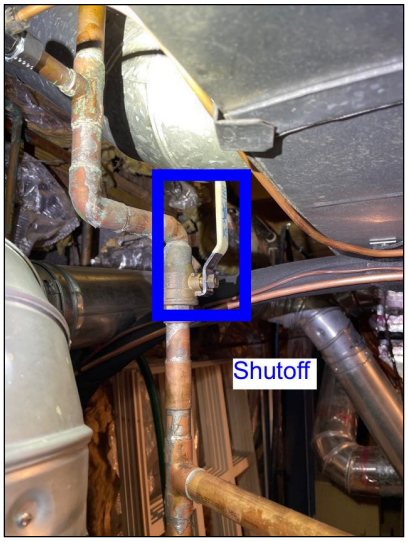
A Main Water Supply Service Disconnect is located where the Utility Company line enters the residence (basement). Ball Valve is present -- rotate the stem on the line to either open (parallel with line) or closed position (perpendicular to line).

Main Service Line

3. Water Heater Disconnect

Water Heater is located in the basement utility room.

A To shut down a gas water heater, perform two actions: 1) shut off the gas line valve near where the lines enters the water heater; and 2) shut of the water by turning the stem shut off valve on the Cold water line to the closed position (perpendicular to the line).



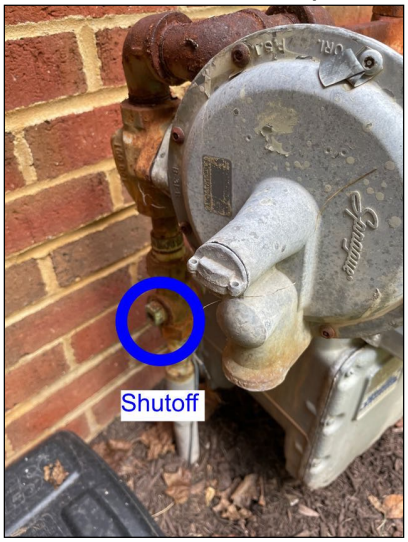
Water Distribution Shutoff Valve

Gas Water Heater Gas Cutoff Noted

4. Primary Fuel Service Disconnect

A Primary fuel service originates with the Utility Company located on the side of the residence. Fuel Service Disconnect is attached to the exterior gas meter. "Street-side" valve (rectangular nub) requires a wrench to open/close the valve. To close the valve, turn it either 90 degrees to the left or 90 degrees to the right (a quarter turn clockwise or counterclockwise).

Gas Meter



Gas Meter Shutoff Valve

5. AC Compressor Disconnect

A Compressor/Air Conditioning Service Disconnects are located near and within direct eyesight of each exterior Air Conditioning unit. Disconnects are a fuse which is pulled directly out of the housing unit.

Air Conditioner Electrical Disconnect — Primary Unit

Air Conditioner Electrical Disconnect — Unit No 2

6. Furnace Disconnect

Furnaces are located in the basement and in the attic.

A Furnace Service Electrical Disconnects, designed as electrical switches with on/off positions, are located near and within direct eyesight of each of the furnaces. To turn the furnace electrical connection off, flip the on/off switch to the off position.

Emergency Shutoff Switch — Primary Unit (Basement)

Emergency Shutoff Switch — Unit No 2 (Attic)

Structure

The structure of a home is evaluated for condition and functionality, examining many parts of a home from the foundation, slab, beams, bearing walls, joists, columns/piers/posts and subflooring. This is important as it is the structure that defines the fitness of a home and the home's ability to stand tall and fast against the very weight and competition of the home itself. While the configuration of a home's structure may vary in make-up from other homes, the elements are basically the same. In simplistic terms there is a set of (unseen) support footings that support the base of the home whether it is a concrete slab, concrete wall blocks and/or a set of support piers or posts. This base is extended by adding beams which support joists or trusses which support a subfloor. While straightforward, examining these elements, especially in a finished home, is a challenge for the Inspector as many components are covered or hidden. The Inspector will take every opportunity to look at the structure wherever there are openings such as above the furnace or by walking around the permiter of the residence. The Inspector will look for foundation movement, past (inactive) or present (active), and examine sheetrock and brick/concrete for cracks, out-of-squre door frames and unlevel floors. The Evaluator will look for deterioration caused by external forces or by moisture intrusion or water penetration. The Inspector will look for "handyman" craftsmanship such as repairs and unauthorized cuts in support joists.

The home's foundation, if visible, is given special attention. There are three types of foundations commonly used in homes throughout North America, with the type used often depending on the climate, soil and groundwater levels in a specific area. The three types are: basements with an independent slab, usually constucted of concrete that is poured to form a hollow, below or partially below grade structure; crawl spaces, whereas a home is raised generally one to three feet off the ground, generally preferred in moist climates, as the home is elevated from the damp ground; and, slabs, as the name suggests, a slab of concrete that sits on the final grade of the property. Each of the three types yield different views but it is the foundation or basement walls that garner added attention. Are there cracks and if so, what type of cracks? For slabs, cracks attract attention although slab cracks are non-structural and cosmetic in nature. One exception which is looked for is a deep crack that would allow Radon gas to more easily enter the home. Slabs also provide lateral resistance for the walls at the bottom. For crawl spaces, a key is to evaluate the support structure and ventilation.

At times it may be difficult to provide a clear assessment of a residence's structure. From the exterior, the residence's cladding (e.g., brick veneer, siding) may come down to the ground level or mulch has been built up to the bottom area of the cladding, both hiding the foundation from observation. Internally, for basement foundations, interior walls may be covered blocking observation of the foundation. Perhaps the foundation walls are covered in insulation blocking observation of the foundation. Other elements of the structure such as slabs, beams, bearing walls, columns, joists and subflooring may also be covered and block observation of the foundation. Primary areas of interior observation include unfinished rooms in the basement with particular attention to those areas noted as exterior walls. The inspector will state the term "observable" as a direct inference that the inspection was limited to those areas of the structure that can be directly seen or viewed.

The inspector will also observe the landscape of the residence relative to the contours of the grounds to move water away from the residence.

Roof framing is often considered an ally of a home's structure. This area is covered under Roof.

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1. General Photos

WELCOME

2701 Silkwood Court

2. Home Framing System

A

Observations:

• Platform Wood Frame

• Platform framing is the industry standard for wood framing methods. It is a light-weight construction type for roof, wall and floor planes. Additional members like studs and joists are used and are spaced accordingly to account for various loads. In this method, each floor is framed out as a separate unit by nailing the horizontal frame member to the top of the wall studs.

• Type(s) of Cladding (Exterior Structure Coating): Cladding is used to provide a degree of thermal insulation and weather resistance to a residence, and to improve the appearance of the residence.

- Brick

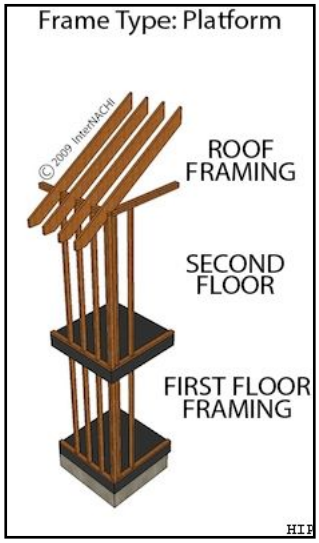
Front View of Residence

Rear View of Residence

Left Side View of Residence

Right Side View of Residence

Residence Cladding



3. Foundation Type & Condition

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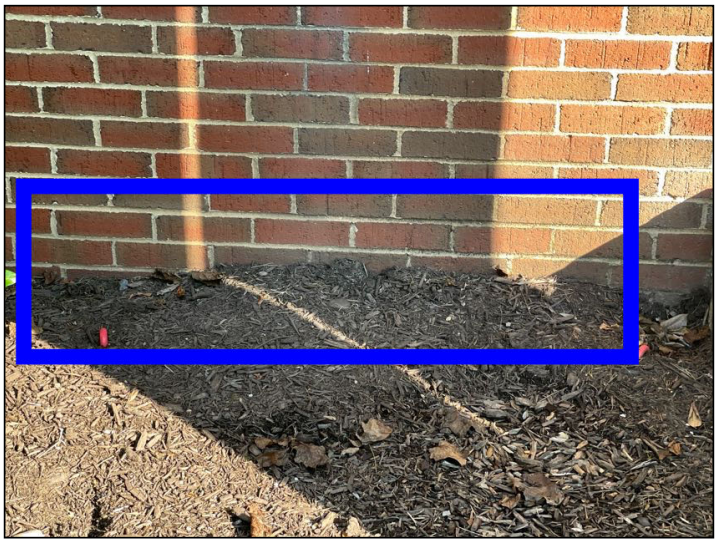
Foundation Type:
• Basement with Slab
• A basement is an architectural structure that basically secures a house or other building about a floor below ground level. Basement walls are considered part of the foundation; the concrete floor, poured separately from the foundation, is generally not considered part of the foundation.
• Foundation Walls Composition: Concrete; Concrete is strong and durable, and can be poured into any shape. This makes it ideal for supporting the weight of a house.
• DESCRIPTION: A home's foundation is the lowermost, load-bearing portion of the house built below, slightly below, or directly on the ground. The foundation supports the structure to keep it level, keep it from moving about, and protect it from water, soil, and other destructive items found in the ground.

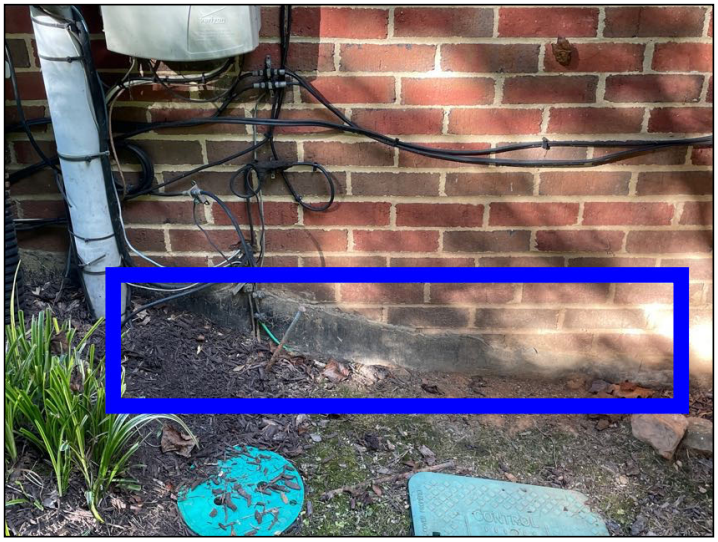
Observations:
• Notice: Foundation and framing inspections are limited inspections as most of the related components are concealed. The home inspector is not a professional engineer and does not offer a professional judgement about the adequacy of any structural system or component. Comments are based on visual observation only.
• Foundation, a primary component of the residential structure, appeared solid from outward appearances as much of the foundation is below ground or covered. No external structural cracks were noted, whether in the foundation itself or any coverings (e.g., brick) to the foundation; no indications of structural movement/shifts were noted. Exterior walls and surfaces are flush and level with no indications of bulging or leaning. Interior foundation observed, although most are covered with finished materials and/or insulation blankets, were noted as without deficiencies on any open surfaces that would have been caused by movement below the outer layer of material. No structural cracks were noted on small surface areas noted. Surfaces appear flush and level with no indications of bulging or leaning.
• An additional inspection of the structural soundness of the foundation was performed to examine the fit and snugness of doors to evaluate if there has been a material shift in the foundation. Based on a sampling of these elements, the additive inspection confirms a sound foundation.



Observed Outdoor Foundation Hidden By Brick

Observed Outdoor Foundation Hidden By Brick

Observed Outdoor Foundation Hidden By Brick



Observed Outdoor Foundation Hidden By Brick

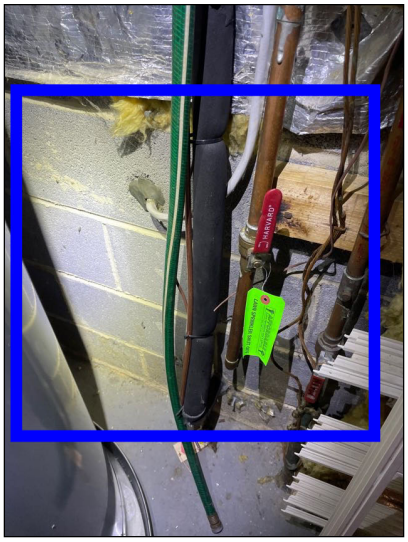
Observed Outdoor Foundation Hidden By Brick

Observed Outdoor Foundation Hidden By Brick

Observed Interior Foundation Area; Appears Solid

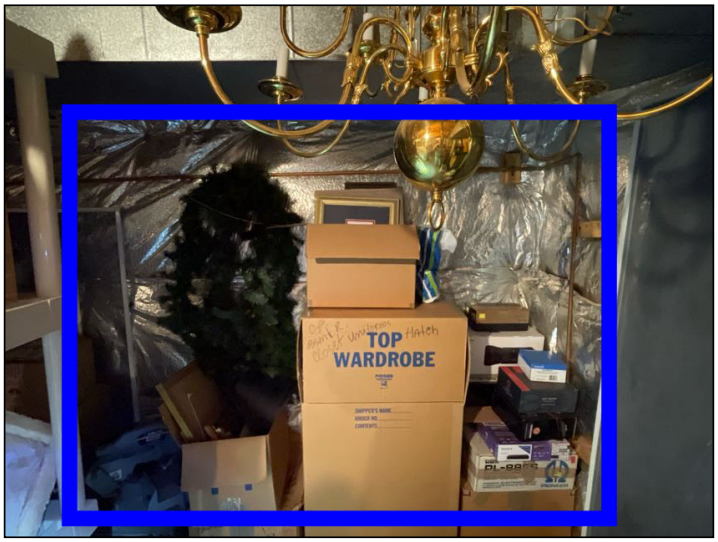
Observed Interior Foundation Area; Appears Solid

Observed Interior Foundation Area; Appears Solid



Observed Interior Foundation Area; Appears Solid

Observed Internal Foundation Area Hidden By Blanket Insulation



Observed Internal Foundation Area Hidden By Blanket Insulation

4. Slab Condition

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Degree Open For Observation:
• Slab is partially observable given the majority of the slab is covered in flooring of some sort.
• While not measured, it is estimated that the depth of the slab is 4" - 6".
• Message: A home's slab-on-grade is not part of the home's structure although it garners attention because of the size/area covered by the slab. The slab is independent of the structural walls as it is poured separately from the walls and more or less sits on top of the (compacted) ground, although there may be structural footers. Minor cracks in the slab are most often minor/narrow and from concrete shrinkage or settlement.

The lifespan of a normal residential slab is 100 years.

Observations:
• Observable slab is noted in acceptable condition without any observable noteworthy cracks. Observable surface areas are smooth and without pitting, crumbling edges or break-offs is noted. No standing water is noted.

Representative Area of Observable Slab -- Appears Solid

Representative Area of Observable Slab -- Appears Solid

5. Structural Beams

A

Beam Type:

• Few Structural Beams are available for inspection as many beams are hidden by finish; such is common in a (partially) finished basement.

• Steel H-Beam

• A steel "H" beam is made of rolled steel in the shape of the alphabet "H." Pound for pound, steel is so much stronger than wood. Steel has the highest strength to weight ratio among building materials, including concrete. Steel is eight times (8X) stronger than concrete in tension and shear; steel is resilient unlike concrete; and steel has better resistance to tensile, compressive, and flexural stress.

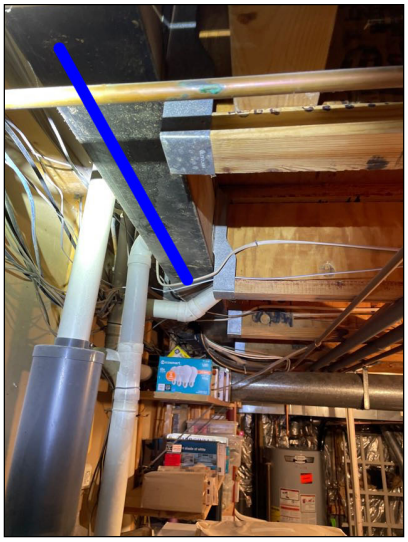
• A Beam is a horizontal structural element that runs horizontally to withstand vertical loads coming off the building frame. The beam takes the load & distributes it to ends and transfers it to columns, walls, and posts on both sides of the beam.

Observations:

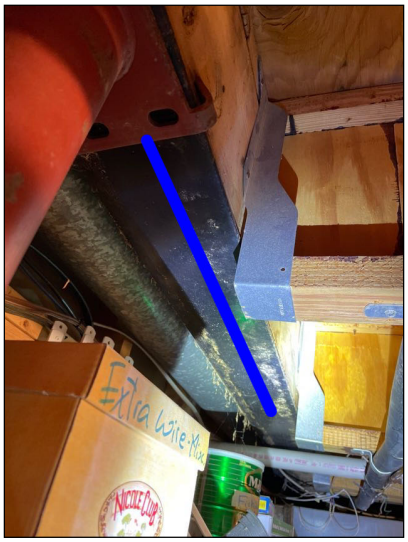
• The beams (also called girders) observed appeared functional with no observable deficiencies. The beams appear level with no "sagging."

• The entirety of the beam(s) as well as other beams were not observed as they were hidden or covered with (finished) material.

Observable Beam(s)



Observable Beam(s)



Observable Beam(s)

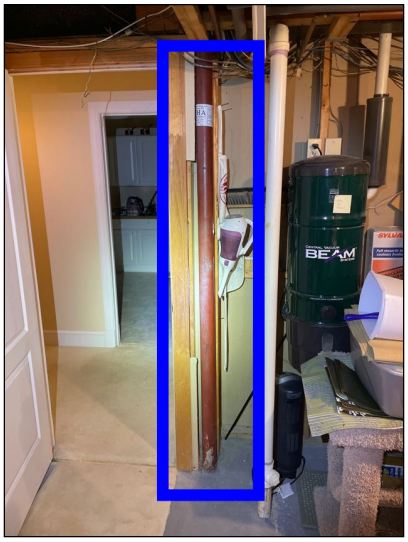
6. Columns/Piers/Posts Type & Condition

A

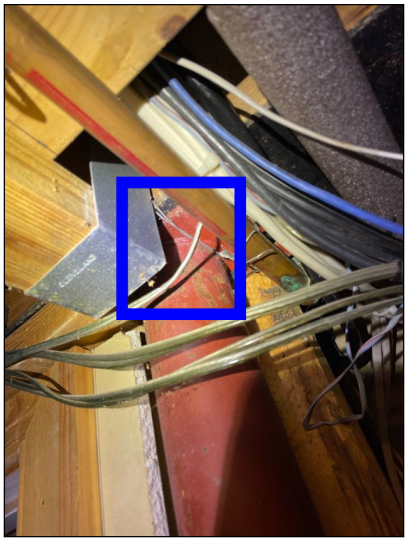
- Few structural supports (columns/piers/posts) are available for inspection as many are hidden by finish; such is common in a (partially) finished basement.
- Steel columns
- Steel columns are 3" diameter steel poles suitable for permanent placement
- Columns, piers and posts are similar from an architectural perspective. Piers generally have direct and substantial contact with the ground; posts are small wooden or metal supports; and columns have steel plates on each end and have a screw on one end to fine-tune exact length of the column. Top and bottom plates are fastened or adapted in some manner to prevent movement. Columns generally transmit weight to footings below the slab.

Observations:

- The columns observed appeared functional with no observable deficiencies. Observable ends, top and bottom, appear secure.
- Many columns are covered and not observable for inspection. Column tops/caps and bottoms/pedestals, important elements of columns which are affixed to structural elements, are often covered with finished material.
- The columns appear to be properly positioned on a beam and affixed in a permanent manner. The columns appear to be properly fitted to a solid footing.



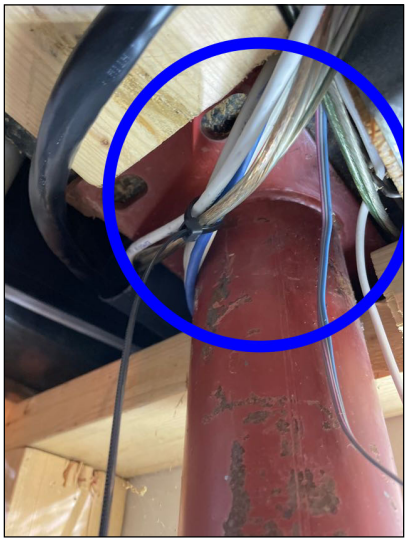
Observable Column



Observable Column Cap

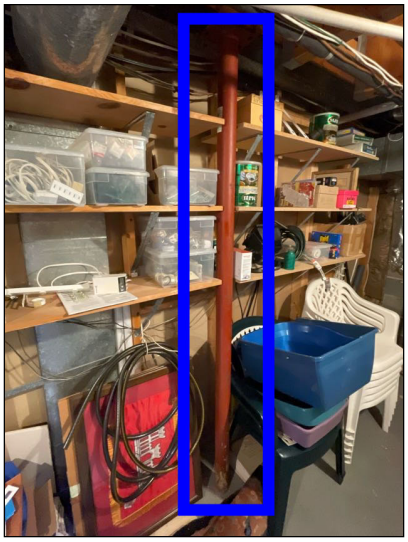
Observable Column Base

Observable Column No 2



Observable Column Cap

Observable Column Base



Observable Column No 3

Observable Column Cap

Observable Column Base

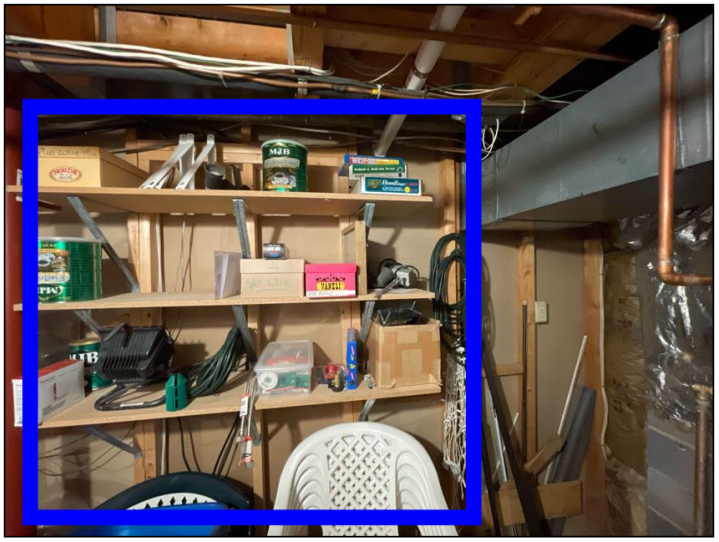
7. Bearing Walls

A

• Few bearing walls are available for inspection as they are hidden by finish; such is common in a (partially) finished basement.
• Bearing Wall Composition:
• Wooden Frame Construction
• A load-bearing wall or Bearing Wall is a wall that is an active structural element of a building, which holds the weight of the elements above it, by distributing its weight to a foundation structure below it. Load bearing walls generally run perpendicular (90 degrees) to the joist structure, bearing the weight of the ceiling joists.

Observations:
• The components of the bearing walls observed appeared functional with no observable deficiencies. Bearing walls are noted as flush and level.

Observable Bearing Wall



Observable Bearing Wall

8. Joists

A

• Few basement joists are available for inspection as many are hidden by finish; such is common in a (partially) finished basement.

• Type/Size of Joist:

• Engineered Joists -- I-joists are strong, lightweight, "I" shaped engineered wood structural members that meet demanding performance standards. I-joists are comprised of top and bottom flanges, which resist bending, united with webs, which provide outstanding shear resistance. The flange material is typically laminated veneer lumber (LVL) or solid sawn lumber, and the web is made with plywood or OSB. The robust combination of structural characteristics results in a versatile, economical framing member that is easy to install in residential and light commercial projects.

• Engineered Joist Size: 12”

• A joist is a horizontal structural member used in framing to span an open space, often between beams that subsequently transfer loads to vertical members. When incorporated into a floor framing system, joists serve to provide stiffness to the sub-floor sheathing, allowing it to function as a horizontal diaphragm. Joists carry the weight of the floor to the foundation, girders, or load-bearing walls.

Observations:

• The joists observed appeared functional with no observable deficiencies. Joists appear level with no warping. Joists appear tight against subflooring. No improper cuts, notches or boring of framing members was observed.

• The entirety of the joist structure was not observed as areas are covered with (finished) material (e.g., ceilings).

Observable Joists


Observable Joists

9. 1st Level Subflooring

A

Composition:

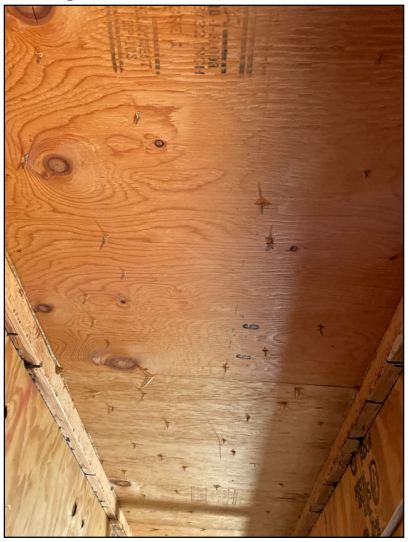
• 1st level subflooring is only partially observed as it is covered with (finished) material; such is common in a (partially) finished basement.

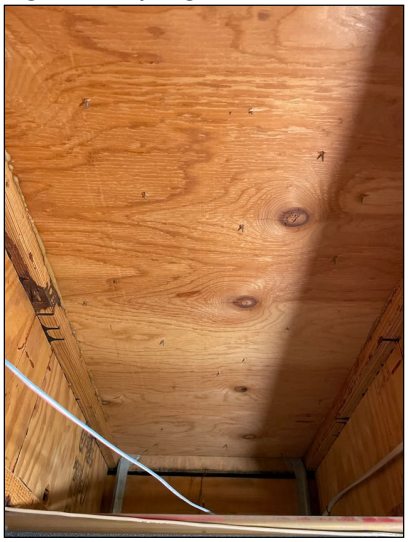
• Plywood, most popular subflooring; a type of strong thin wooden board consisting of two or more layers glued and pressed together with the direction of the grain alternating.

• The subfloor sits immediately above the joists and just below the underlayment. The purpose of a subfloor is that it offers a structurally sound flat surface to hold up the underlayment and finish floor. The subflooring transfers the load of the home's furnishings and people to the floor joists.

Observations:

• The subflooring observed appeared functional with no observable deficiencies. The subflooring shows no indication of cracks, bulging, buckling or warping.


Observable 1st Level Subflooring


Observable 1st Level Subflooring

10. Steps & Stoop

Composition: Concrete • Composition: Brick

A

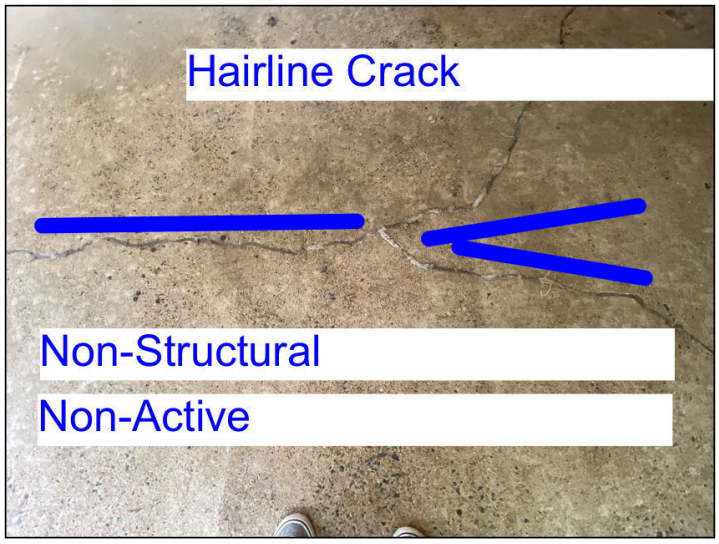
Observations:

• Steps and Stoop are found to be in an acceptable condition with no noticeable deficiencies. While not part of the foundation/structure, the stoop and adjoining steps are evaluated to assess any settlement and safety issues.

• Settlement crack noted on right rear stoop. The crack is not structural and not active. Settlement cracks are common as the foundation soil under the stoop is often not as “packed” as that under the residence. Minor shifts can cause the crack; perhaps even the 5.8 earthquake that hit the Virginia Piedmont region August 23, 2011.

Front Step & Stoop

Rear Stoop



Rear Stoop

11. Landscape Views & Contours

Landscape Characteristics: Flat to Moderate Elevation Change

A

Observations:

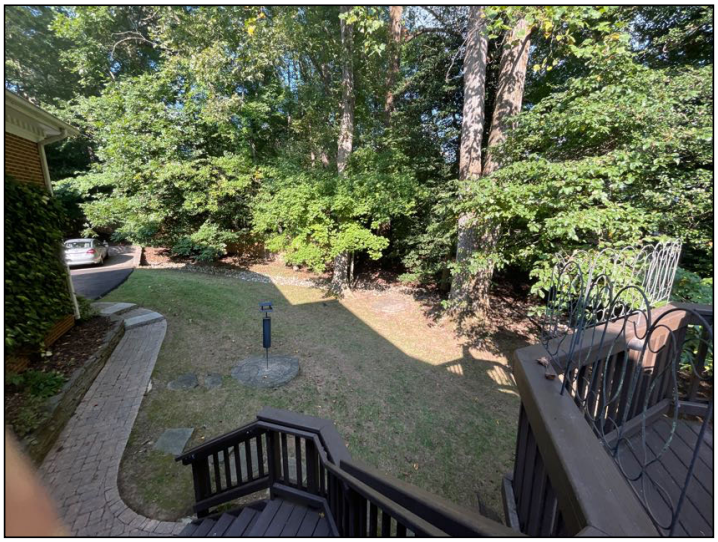
• Grading meets standards with a primary goal of keeping the structure free of moisture intrusion from improper landscaping.

• Short Retaining Wall is noted; wall appears to be functional and in satisfactory condition. No bowing or wall degeneration is noted.

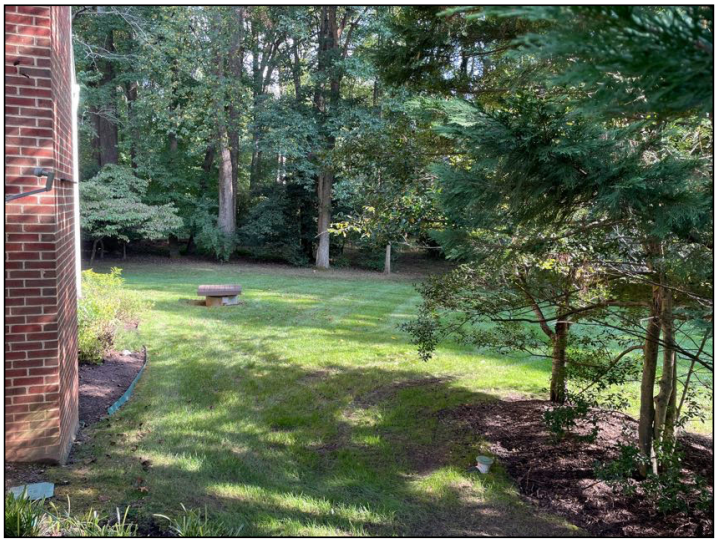
• MESSAGE: Lot grading and drainage can have a significant impact on the residence, if for no other reason than the direct and indirect damage that moisture can have on the foundation. It is very important, therefore, that surface runoff water be adequately diverted away from the home. Generally speaking, lawns and yards can be constructed to include a gentle slope away from the house that allows water to drain off the yard to its finally destination. This consistent slope reduces water infiltration into lawn spaces near the home. Proper yard grading will also help prevent water from causing wet and mushy spots in the lawn after it's been safely directed away from the house. Lot grading should slope away and fall a minimum of one (1) inch every foot for a distance of six (6) feet around the perimeter of the residence.

Property Landscape -- Front Yard

Property Landscape -- Rear Yard



Property Landscape -- Rear Yard

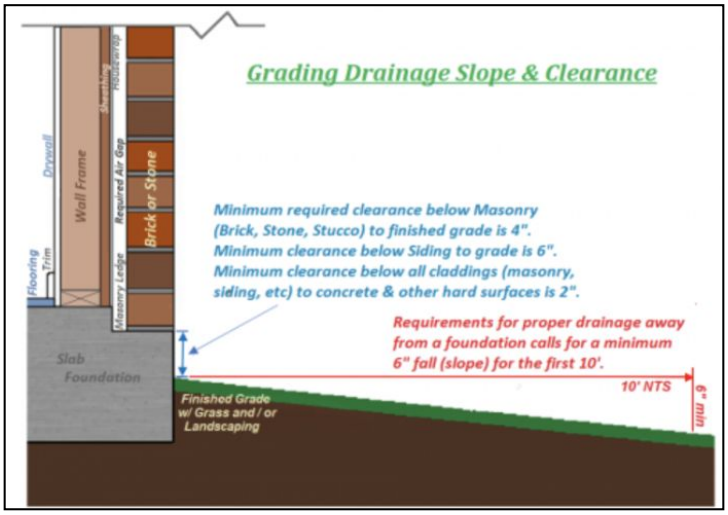


Property Landscape -- Right Side Yard

Property Landscape -- Left Side Yard

Property Landscape -- Left Side Yard

Rear Left Retaining Wall



Proper Drainage Slope From Foundation

Roof

The basic purpose of a home roof is to provide to persons inside the structure protection from the elements to include something as basic as bright sunshine and changes in weather such as rain, snow, sleet and high winds. Without a roof, possessions such as furniture, appliances, carpets. artwork and clothing would be ruined. The basic interior of the home would be damaged by the weather from the flooring to doors and walls.

The home is served by the presence of certain elements of the roof structure. First and foremost is the roof covering, generally shingles of which there are a variety depending on the pitch of the roof, typical weather and personal preferences. Roof flashing is present and designed to direct water away from critical areas of the roof. Gutters and downspouts provide a means to carry away the water that drains off the roof and directs it from the exterior walls and base of the structure. Roof sheathing/decking, found under the roof covering (shingles and underlayment), serves as the foundation of the roof though is most often not visible from the exterior of the home and will be inspected from the inside of the attic.

Assessing a roof from the roof structure itself can be both advantageous and disadvantageous. For the former, an inspector can get a close examination of hail damage, exposed nail heads, deteriorated plumbing vent boots and caps, soft roof decking, loose flashing and a close-up view of the chimney components. For the latter, an inspector can damage guttering and roof shingles, potentially voiding a manufacturer's warranty and, most important, physically fall with an outcome no one wants to think about. It is for the latter reason that many inspectors avoid walking on roofs. There exist sound alternatives to walking on the roof to include carefully standing a ladder against the edge of the roof, using a camera with a telephoto lens, using binoculars, and growing in popularity and effectiveness are drones. Drones are ideal for roof inspections, weather permitting, although capital area restrictions prohibit any drone use within 15 statute miles of Reagan National Airport. Areas near Dulles airport such as Reston can be drone-accessed with FAA approval. Drones can get close up pictures of shingles, flashing, chimneys, and heating and plumbing fixtures.

Regardless of the means of assessment, inspecting the roof is of utmost importance. It is one of the major components of the home system that protects the home from the elements to include moisture, the number one cause of damage to a home. In addition to evaluating roof components as noted above, an inspector will evaluate wind exposure and the effect of organic debris on the shingles, all of which affect at the life expectancy of a roof. When attic access is available, roof sheathing and framing will be evaluated for structural soundness. Moisture intrusion on the sheathing is also reporting under Moisture Intrusion.

Roof coverings/shingles have lifespans that run from 20 years to 100 years with the most common product, the asphalt/fiberglass shingle having a lifespan of 20 to 25+ years. It is recommended to document the date of the last roofing installation, the installer and any written or implied warranties.

Chimney condition is reported under this Roof section though it can be argued it belongs in Structure as the roof is considered a structural element of a home.

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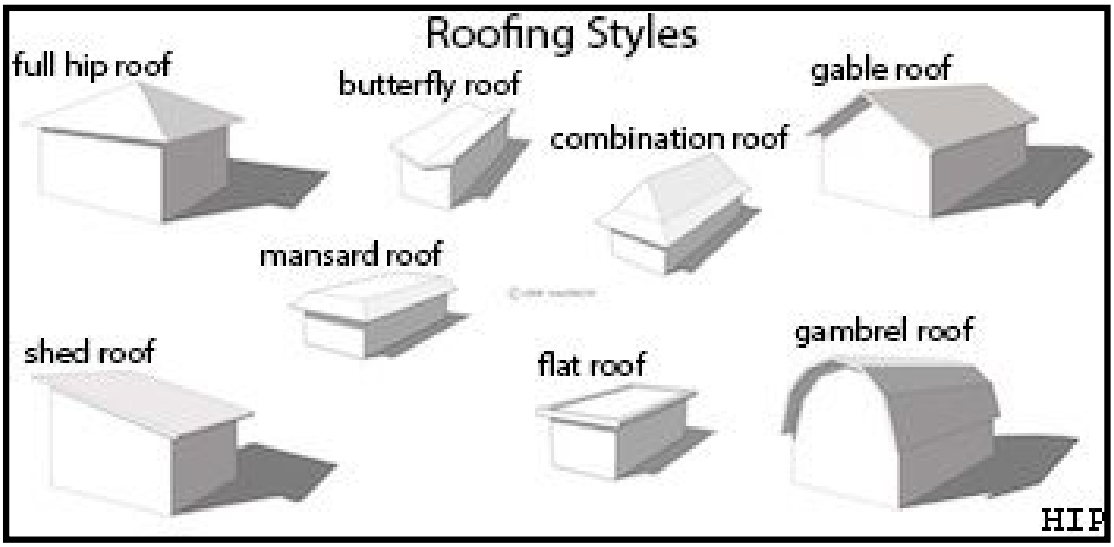
1. Type of Roof Structure

A

• Hybrid Roof Structure
• Hybrid Roof Structure: a combination of two or more of the primary roof structures:
• Gable Roof Structure
• A gable roof has at least one flat end called a “gable.” This triangular end is not composed of roof materials. Instead it is made of siding, stone or whatever materials are used on the rest of the home's exterior. A gable roof can have one, two or more gables.
• Hip Roof Structure
• A hip roof (or hipped roof) is a type of roof design where all roof sides slope downward toward the walls; where the walls of the house sit under the eaves on each side of the roof.
•



Types of Roof Structures

2. Method of Inspection

A

• Roof Characteristic Viewing Enhanced By:
• Walk On Roof -- Inspector was able to walk on a reasonable portion of the roof which afforded a good view of many sections of the roof. Lower sections of the roof were not accessible.
• Ladder at edge of roof enabling a close but limited view of the roof
• Ground Level Zoom Camera -- A camera with a zoom lens was used to capture as much of the roof surface as possible. Telescoping lens allows close-up views from ground level. The roof sheathing is also observed from the attic where possible.
• Note: An FAA request to use an aerial drone to conduct this home inspection was denied due to the proximity to airports or other sensitive facilities. GPS drone use within 15 nautical miles of Reagan National Airport is prohibited.

3. Roof Observations

A

• Roof structure (independent of shingles/roofing material), as viewed externally from multiple vantage points, is noted as functional with no observable deficiencies. Roof plane is even across all observed elements with no signs of waviness, sagging, humps, buckling or curling. Ridge lines are shown as even with no breaks or cracks noted.

Front Residence Roof

Right Side Residence Roof

Front Left Side Residence Roof

Residence Roof

Residence Roof

Residence Roof

Residence Roof

Residence Roof

Residence Roof

Residence Roof

4. Shingles/Roofing Material

A

Type of Shingle:
• Architectural shingles; 25 - 30 plus year life; composed of a heavy fiberglass mat base and ceramic-coated mineral granules that are tightly embedded in water-resistant asphalt.

Estimated Useful Life:
• Shingles/Roofing Material is observed as being relatively new.
• Shingles/Roofing Material in first half of expected life cycle
• RECENTLY REPLACED
Per owner, the roof was replaced in 2021. The warranty is transferable. Recommend obtain warranty documents from owner.

Observations of a Representative Sampling:
• Shingles/Roofing Material appears to be functional with no observed deficiencies. No shingle damage or missing shingles were observed. No missing, loose, damaged or poorly nailed shingles were noted. Shingles are NOT noted as curling or cupping, a sign of deterioration.

Snapshot of Shingles/Roofing Material (Closeup)

Snapshot of Shingles/Roofing Material

5. Skylights

A

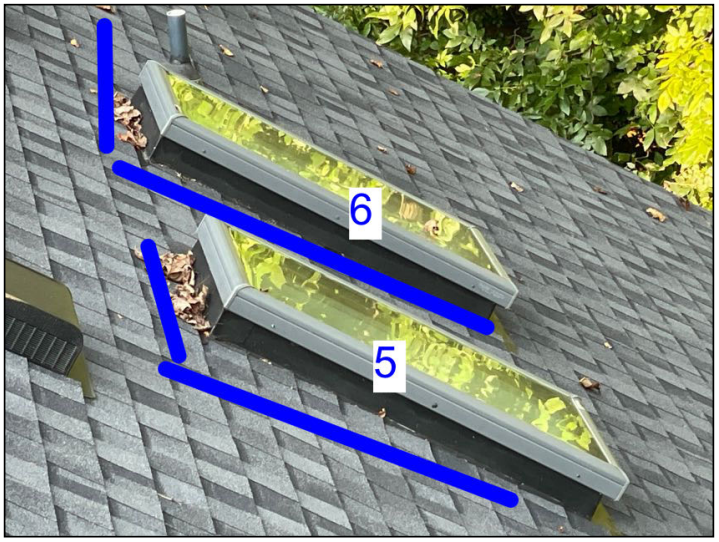
Observations:

- 6 Skylights noted.
- Skylight(s) appear to be functional with no observed deficiencies -- no signs of active or prior leaking around/within the skylight were observed.
- MESSAGE: Typically a skylight will last between 8 - 15 years, depending on how well it was installed and the quality of the skylight's manufacturing. The majority of problems with skylights falls within the area of water leaks. Traditional sealants, namely mastic and similar sealants, may fail with time, causing water leaks. Glazing can crack or even break with increased exposure to the sun. Seals may break causing condensation and fogging. Recommend annual maintenance inspection of skylights.

Exterior View of Skylights — Center Rear

Exterior View of Skylight —Left Rear Loewer

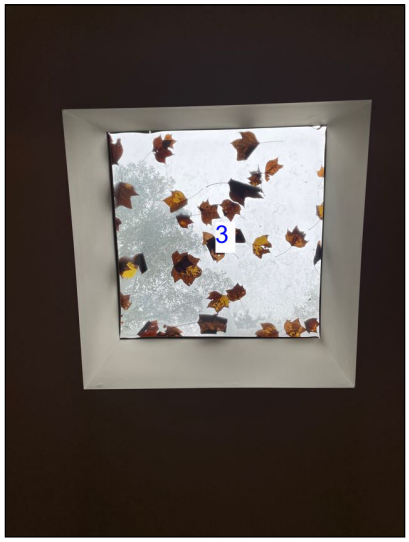
Exterior View of Skylight — Left Rear Lower



Exterior View of Skylights - Left Rear Upper

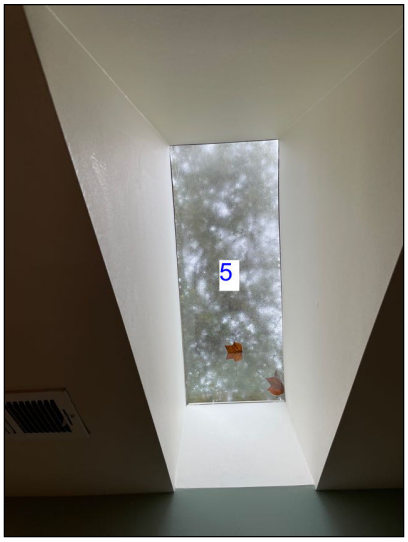
Interior View of Skylights — Right Center

Exterior View of Skylights — Right Center



Interior View of Skylights — Rear Left Lower

Exterior View of Skylights — Rear Left Lower



Exterior View of Skylights — Rear Left Upper

Exterior View of Skylights — Rear Left Upper

6. Roof Flashing & Vents

A

Roof & Vent Flashing Noted:

• Counter Flashing: Formed metal sheeting secured onto a rooftop to cover and protect the upper edge of a base flashing and its associated fasteners.

• Roof-to-Wall: Flashing is required where second story walls meet first story roofs where a headwall or sidewall flashing is nailed to the framing

• Cricket: A sloped backing that diverts water away from the chimney and down the roof.

• Drip Edge Flashing: Flashing at the edge of the roof serves to prevent water from getting to the roof sheathing, backing up behind the roof covering and gutters and seeping into the fascia board,.

• Kick Out/Diverter Flashing: Flashing that diverts rainwater away from the cladding and into the gutter.

• Pipe and Vent flashing: Flashing surrounds a pipe or vent and has a flat part that is laid on the deck and a cylindrical part that extends up and is crimped into or placed around the piping. The flat part lies under the roofing on the high side and over the roofing on the low side.

• Step Flashing: Covers the edge of a wall and the lower roof structure. Step flashing consists of short metal "L-shaped" flashing that lie under the roof covering and bend up the wall behind the the siding or counter flashing.

• Ridge Cap Flashing -- area of shingle overlap at roof peaks; not to be confused with Ridge Vents.

• Valley Flashing: Open and Closed Valley flashing that supports the trough formed by the junction of two sloping faces of the roof; generally made from asphalt shingles or preformed metal,

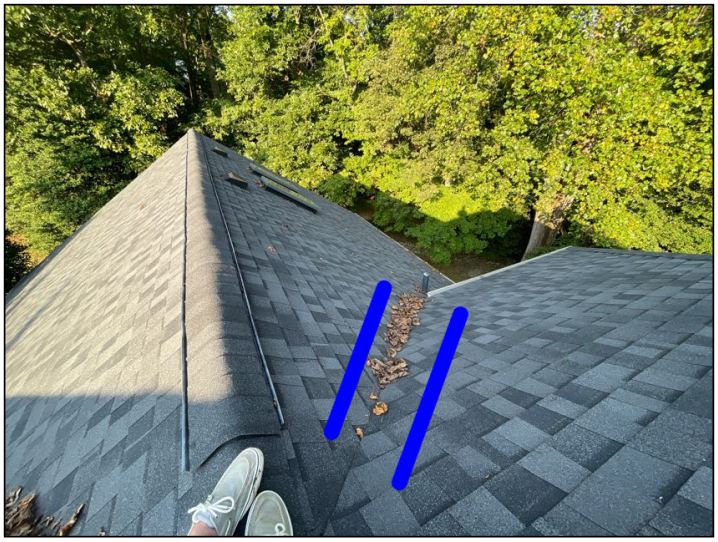
• Ridge Vents -- air exhaust vent installed on the peak of a roof to work in conjunction with soffit vents to provide needed attic cross-ventilation. In essence it is an air slot that is covered to resist wind-driven rain and snow as well as insect and debris infiltration. Properly ventilating the attic helps reduce excess heat and moisture in the summer and also helps keep the roof system cold during the winter to reduce the freeze thaw cycle that may cause ice dams.

• Box Vents: Box vents are versatile and can only be installed across the top of the roof.

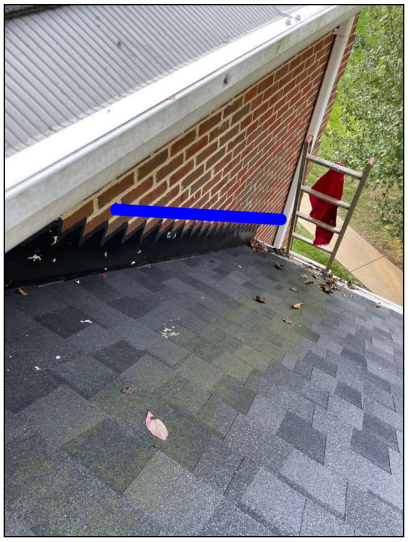
• Power Vents: Power vents are circular vents you usually see near the ridge cap on a roof. These vents rely on electricity to pull hot air out of your attic

Observations:

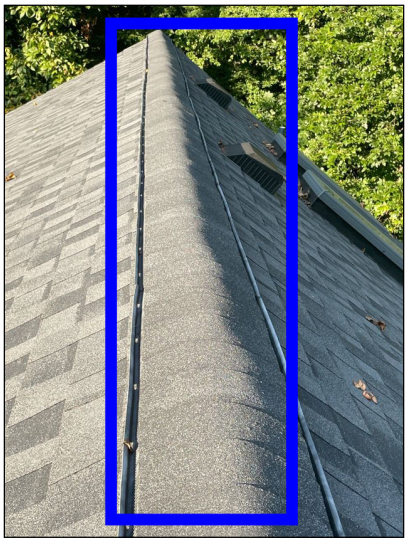
• Plumbing and heating/exhaust vents and caps appear to be functional with no observed deficiencies. Component flashing appears functional and secured appropriately to the roof structure.



Roof Valley Flashing

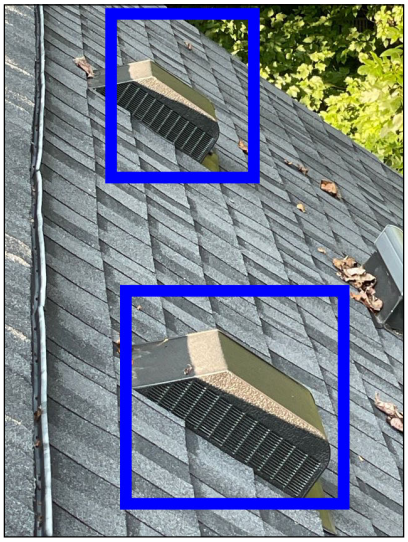


Roof Step Flashing



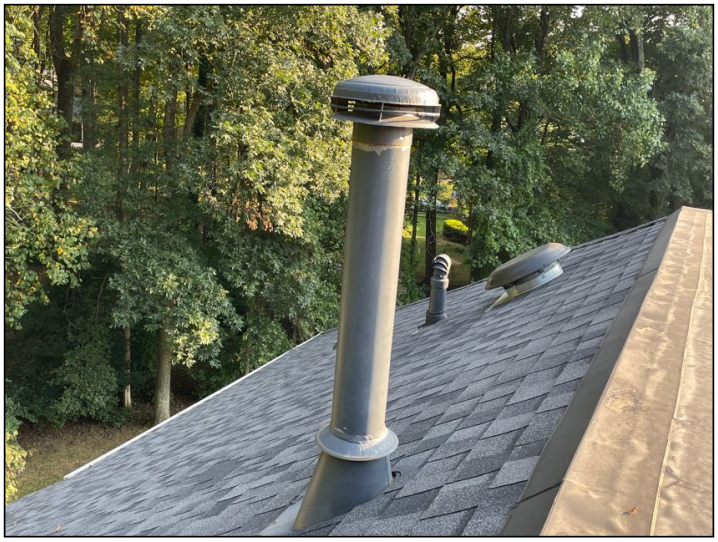
Roof Cap Vents

Plumbing Vent



Attic Ventilation Vents

Attic Ventilation Fan (External View)



Heating Vent

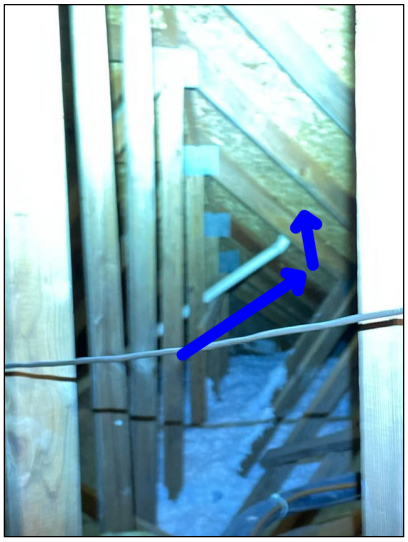
Plumbing Vent

Plumbing Vent

Plumbing Vent

Ventilation Roof Fan (Attic View)

Ventilation Roof Fan (Attic View)



Plumbing Vent

Heating Vent

Large 2nd Level Ceiling Fan (Extends Into Attic)

7. Gutters & Downspouts

A

Observations:

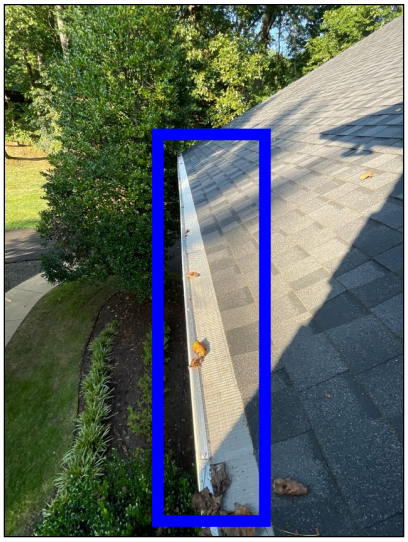
• Roof water drainage system appeared functional. Overall, gutters appear sufficient to carry roof water to the downspouts which carry water through leaders/extensions to a satisfactory distance from the residence foundation, generally 4 feet, 6 feet if there are basement walls.

• Splash Blocks are noted to carry water away from the base of the home.

• Corrugated tubing is noted which carries water away from the base of the home.

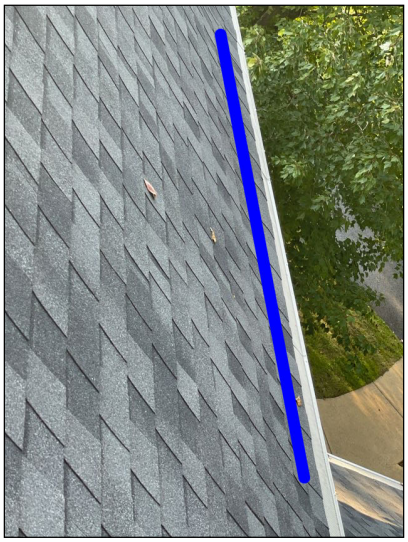
• Gutters with gutter covers/caps are noted on all observable gutters. Covers/Caps appear to keep debris/leaves from entering the gutters.

•



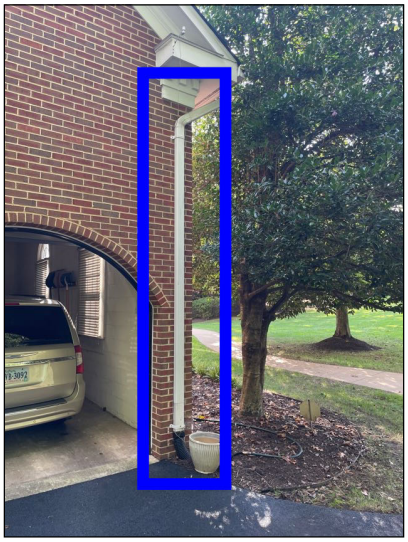
Gutter With Gutter Cap

Gutter With Gutter Cap

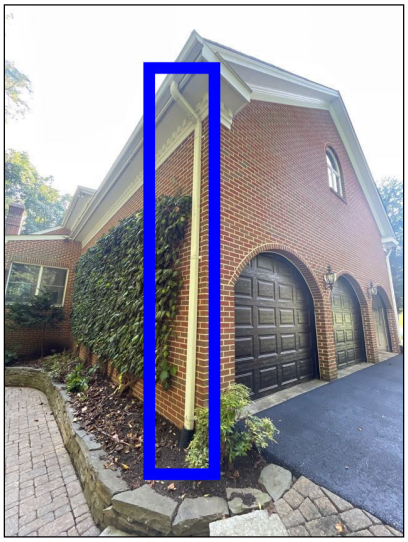


Gutter With Gutter Cap

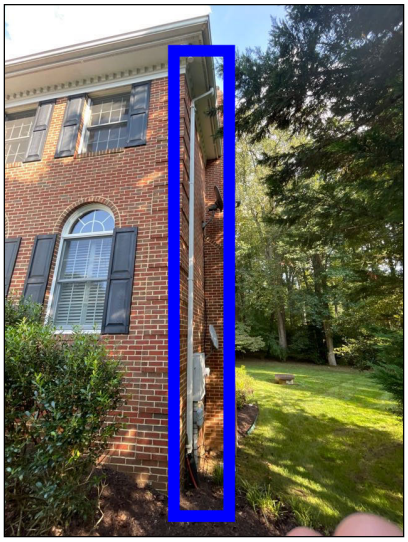
Gutter With Gutter Cap



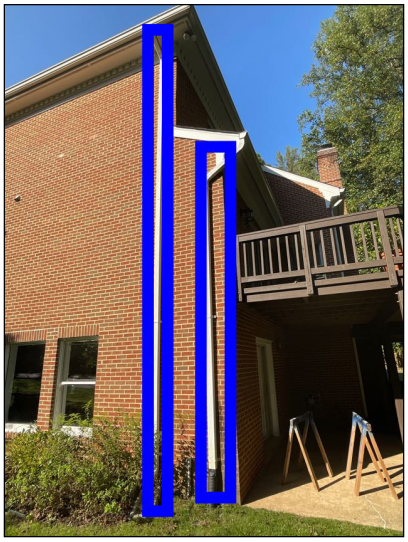
Downspout With Corrugated Tubing Extension



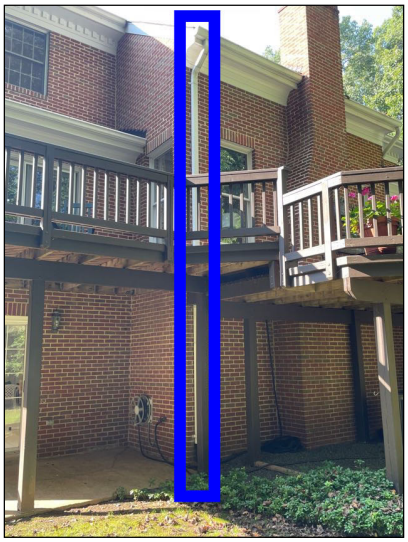
Downspout With Corrugated Tubing Extension



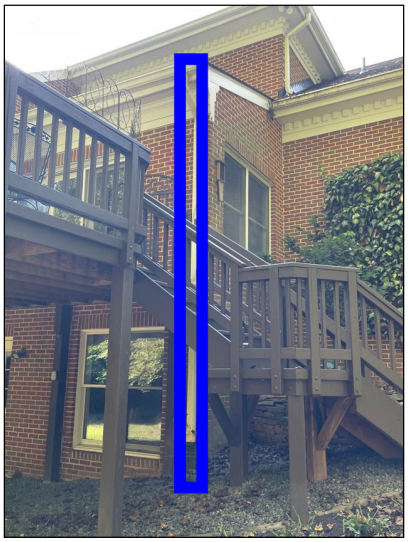
Downspout With Corrugated Tubing Extension



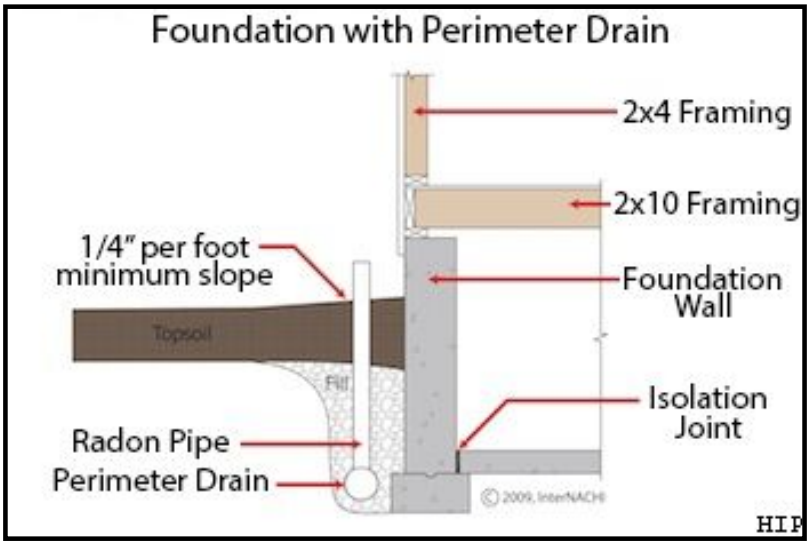
Downspout With Corrugated Tubing Extension



Downspout With Corrugated Tubing Extension



Downspout With Corrugated Tubing Extension



MESSAGE: Proper roof drainage is important to protect the home structure from the primary culprit of home damage -- water. The drainage system consists of properly aligned gutters to the slope of the home, downspouts connected to the gutters to guide the rainwater to exit points or downspouts which terminate with leaders that carry the runoff away from the home. It is important to have downspouts empty content at a sufficient distance from the foundation.

8. Chimney

A

Chimney Construction:
- Both chimneys are brick
- Chimney Chase has a brick construction.
- Chimney Crowns are concrete-based.
- Chimney Caps are metal-based; Spark Arrestors noted

Observations:
- 2 Chimneys present: Right side and Rear
- Both chimneys have Spark Arrestors which retain/diminish sparks from a wood/solid fuel burning fireplace. Fireplaces may have been converted to gas.
- Message: It is often challenging to view all the components of a chimney. As such, it is recommended that a chimney be inspected by a professional, and prior to its first use by the homeowner and annually thereafter.
- Noted Chimney Flashing appears to be in good condition.

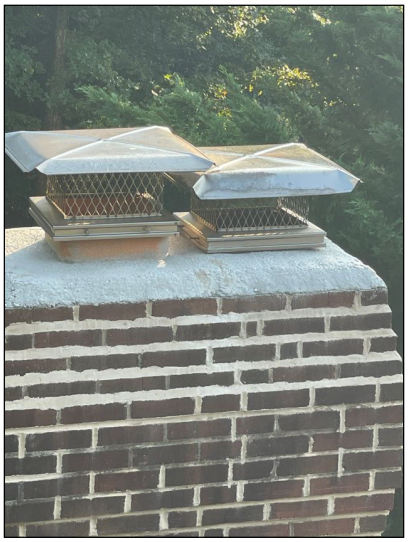
Right Chimney

Right Chimney Base

Right Chimney Chase (Lower Area)

Right Chimney Chase (Upper Area)

Right Chimney Chase, Crown, Cap & Cricket



Right Chimney Crown & Cap

Rear Chimney

Rear Chimney (Lower Area)

Rear Chimney (Upper Area)

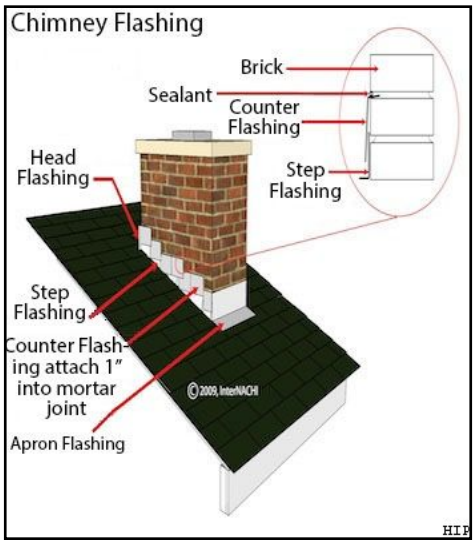
Rear Chimney Chase, Crown, Cap & Cricket

Rear Chimney Crown & Cap

Basement Wood Burning Fireplace

Living Room Fireplace

Living Room Fireplace



Family Room Fireplace

9. Roof Framing (Attic View)

A

Type of Framing:

• Rafter supports are noted:

• 2x4 Rafters and Supports

• Roof Rafters: Rafters are the traditional means of framing a roof commonly known as stick framing. Each rafter is built on the job site using dimensional lumber. Every piece is measured, cut, and fastened together to form the rafter.

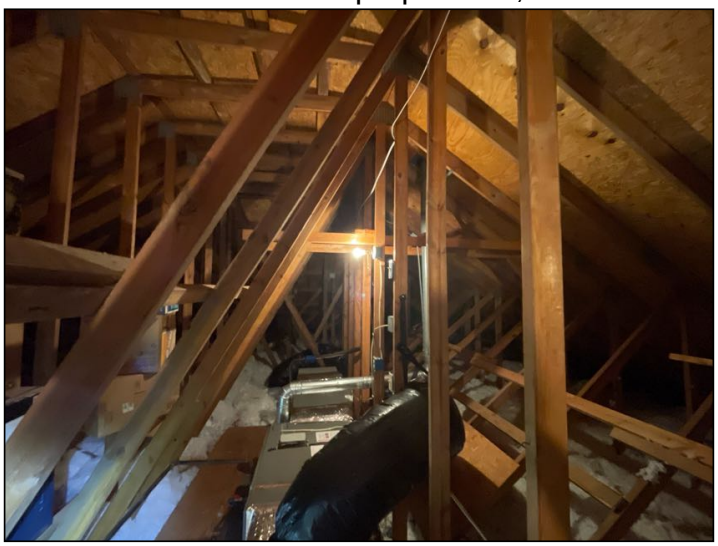
• Attic Access:

• The entirety of the attic was not observable given limited walk access and noted risk of transit. Such limits full viewing and evaluation of attic roof framing.

• Primary component of a Roof Frame (group of rafters and beams fitted or joined together to provide support for the roof covering): Truss/Rafter -- a truss/rafter is a structural element utilized in the construction of a roof. It usually goes from the roof's ridge or hip to the external wall plate. Trusses/Rafters are typically laid in a succession, side by side, to provide a foundation for roof decks, roof coverings, and other items.

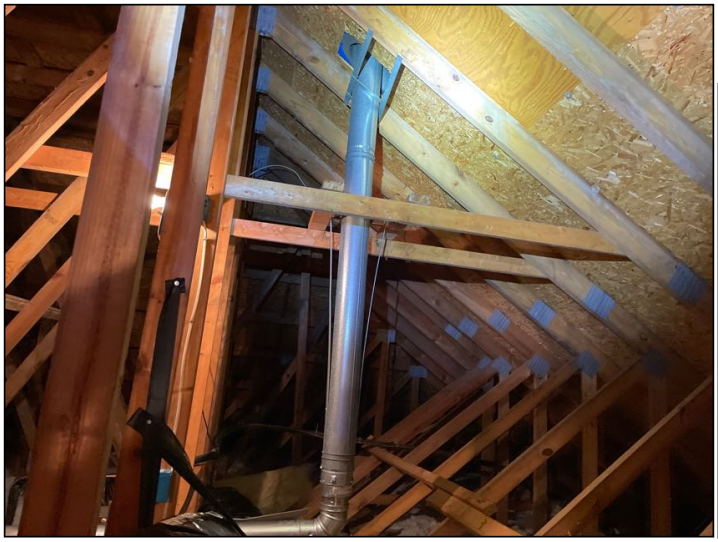
Observations:

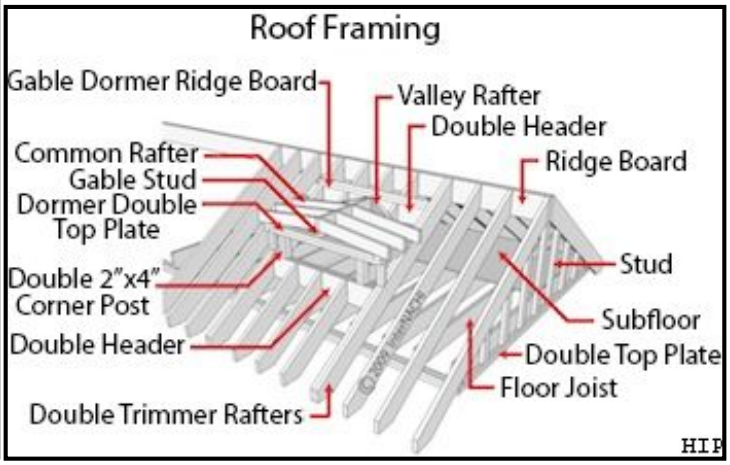
• Rafters as observed within the attic were found to be functional with no observed deficiencies. No improper cuts, notches or bores of framing members were observed.



Roof Framing

Roof Framing





Roof Framing

10. Sheathing (Attic View)

A

Type of Wood Structure:
• Plywood
• Plywood; plywood has several different thicknesses (", ½", ", and ¾") depending on the span of your rafters. Plywood is a popular sheathing in residential homes.
• Attic Access:
• The entirety of the attic was not observable given limited walk access and noted risk of transit. Such limits full viewing and evaluation of the attic sheathing where roof abnormalities and potential leaks can be noted.
• Roof sheathing (also called roof decking) is the wooden boards that make up the framing of a roof system. These boards are what your shingles and other roofing components are installed directly on. Some residences have plant sheathing but most homes have Sheet sheathing, which are wide, flat sheets of wood. The two types of sheet sheathing are plywood and OSB.

Observations:
• A representative area of the roof sheathing was observed from the attic. The noted sheathing appeared functional with no noticeable deficiencies. There were no indications of bulging, buckling or warping.

Attic/Roof Sheathing

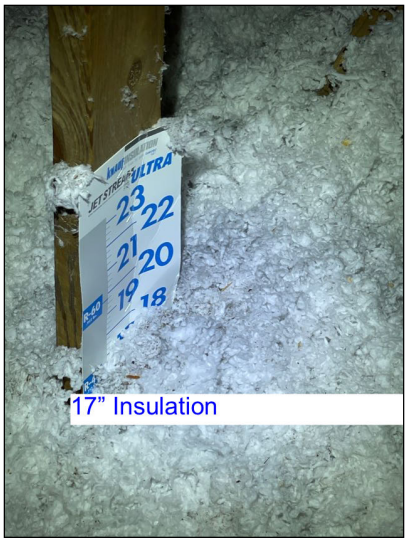
Attic/Roof Sheathing

11. Insulation

A

Observations:

- Insulation observed given access viewed as satisfactory.
- Insulation noted as having 17 inches of depth/covering
- Insulation is a variety of products that help reduce the loss of winter heat and summer cooling through the roof, helping to save on electricity and gas use. The two basic types of attic insulation are rolled insulation and blown-in insulation.



Attic Insulation

Attic Insulation

Electrical

The home inspector must be familiar with the inner workings of an electrical system to understand where there may be issues. The topic can get complex but the home inspector will keep it simplified. He/She will not describe Ohm's Law where voltage is the force that moves electrons, forcing a current. Nor will the home inspector present amperes as a measure of electron flow through a device. Nor will he discuss how Ohms slows down current flow. Rather, the home inspector will discuss voltage and amperage relative to the size and capacity of the electrical system of a home. Basically the current flow in an electrical circuit is measured in amps or amperes. It is the measurement of the volume of electrical flow. As more current is used (e.g., a stove), larger/better insulated wires are needed. This can be observed by noting the difference in size between the connection wire to a breaker of an electric stove and the size of the wire of a typical household lamp. Additionally, an electrical system flows in a circuit. When a circuit is not complete (e.g., breaker open), no current can flow. This is good because it means switches can be used to turn components on and off.

The electrical inspection of this report is divided into three primary sections: Electrical, Main Service Panel, and Sub Panel. The Main Service Panel and Sub Panel inspections are discussed in corresponding sections of this report. For the Electrical section the home inspector will inspect viewable portions of the service drop or underground laterals, whichever is applicable, from the utility to the house. Service grounding will be inspected although the terminal portion of the grounding may not be visible as the grounding is required to be completely buried underground, or perhaps grounded to a Ufer or the plumbing system where the terminal grounding is also not visible.

Exterior and interior lighting and outlets will be inspected. External outlets will be evaluated for GFCI protection with lighting evaluated for protruding and unprotected wiring. Interior wiring will be evaluated for GFCI protection for areas near water and basement and garage outlets. A representative number of electrical interior outlets/receptacles, switches and lighting units will be evaluated for functionality, grounding and polarity.

All issues or concerns listed in the Electrical section should be construed as current and a potential personal safety or fire hazard. Repairs should be a priority, and should be made by a qualified, licensed electrician.

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1. Main Electrical Service To Home

A

Observations:
• Underground electrical service to home is noted, located at the side of the home.

Electrical Utility Box

2. External Grounding

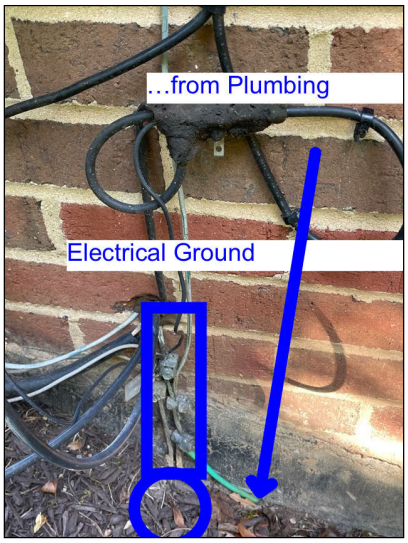
A

Observations:

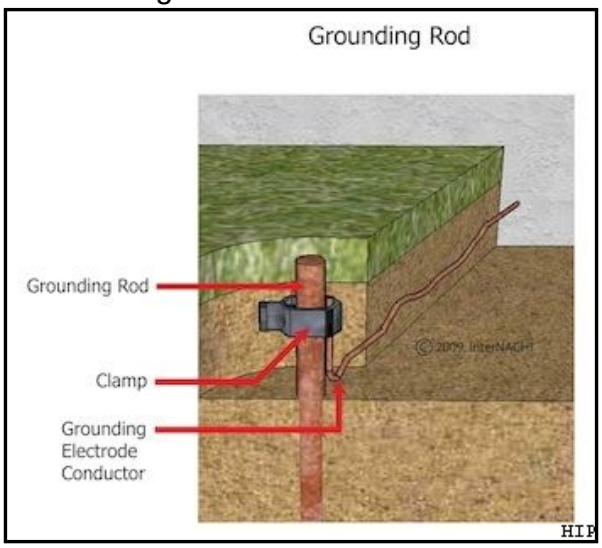
• Grounding wire is observed although the grounding vessel is not visible (buried rod, Ufer, plumbing) which is acceptable given most grounding vessels are buried.

• MESSAGE: The most important part of a home's grounding system is the connection of the main service panel grounding/neutral busbar to an external ground. The connecting ground wire may be insulated (green or green with yellow colored insulation) or bare, and shall be installed in one continuous length without a splice or joint. The external ground may be the plumbing system, a metal well casing, and generally two rods driven eight feet into the earth, six feet apart and bonded together. There may also be in more modern installations a Ufer ground, a concrete enclosed electrode. Often the connection of the grounding wire to the external ground is not known or not visible as the wire is buried below grade. The main grounding wire is fed into the main service panel usually to a metal lug on the back of the metal panel or at the end of the ground bus bar.

In the event of some kind of breakdown in the system, the grounding system provides a path of least resistance that ensures current will flow safely back to the earth itself. It thus reduces the chances that a short circuit can cause a fire or life-threatening shock.



External Grounding Wire

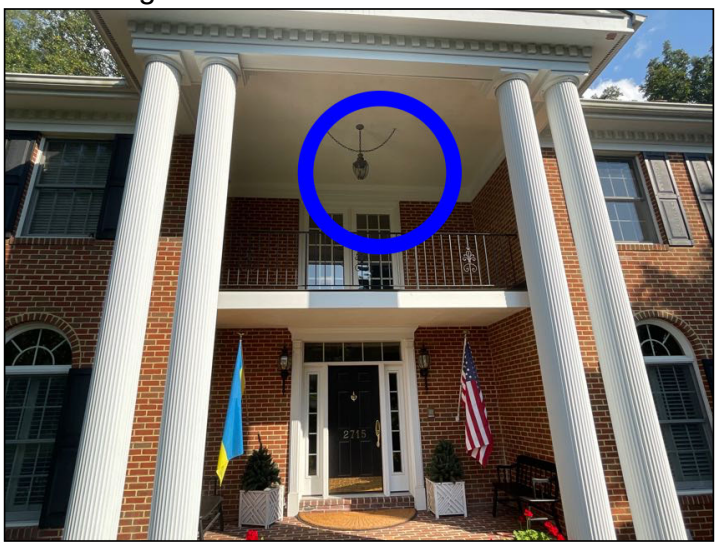


3. Exterior Lighting & Outlets

A

Types of electrical outlets and voltage:
- 120 VAC and GFCI Outlets
- 120 VAC Surface Mounted Lamps
- VAC: Volts Alternating Current
- Message: GFCI requirements for external electrical outlets originated in 1971; garages, considered external for electrical purposes, in 1978. It is recommended to bring all applicable GFCI outlets up-to-date regardless of when the home was built.

Observations:
- Exterior lighting outlets and post lights are viewed as being in satisfactory condition.
- All observed electrical outlets were tested for voltage, continuity, shorted or open circuits and improper wiring.
- For exterior outlets in a series (i.e., no GFCI nodes on specific outlets), the outlets are GFCI supported by the GFCI breaker in the Main Service Panel, Right Panel, breaker no 7.
- Message: Ground Fault Circuit Interrupters (GFCI), whether inline for a specific outlet or series of outlets or in the main panel box, are required for outdoor, garage and unfinished basement outlets. The ground-fault circuit interrupter, or GFCI, is a fast-acting circuit breaker designed to shut off electric power in the event of a ground-fault within as little as 1/40 of a second. It works by comparing the amount of current going to and returning from equipment along the circuit conductors.



Outdoor Light

Outdoor Light

Outdoor Light

Outdoor Light

Outdoor Light

Outdoor Light

Outdoor Light

Outdoor Lights

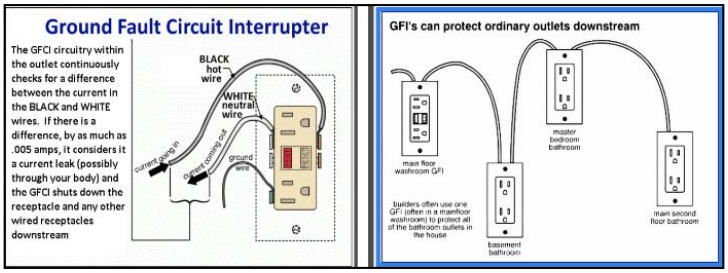
Outdoor Lights

GFCI Outlet Testing Functional

GFCI Outlet Testing Functional

GFCI Outlet Testing Functional

GFCI Outlet Testing Functional



4. Interior LIghting & Outlets

A

Types of outlets and voltage:
- 120 VAC outlets; 3-Prong Grounded Receptacles
- 120 VAC GFCI outlets; 3-Prong Grounded Receptacles
- 120 VAC Ceiling Fan(s)
- 120 VAC Ceiling Fan(s) With Light(s)
- 240 VAC Air Conditioner
- 240 VAC Dryer
- VAC: Volts Altenating Current
- Message: GFCI requirements for internal/inside electrical outlets originated in 1975 for bathrooms; kitchens for outlets within 6' of sinks in 1987; all outlets in kitchens in 1995; laundry room outlets in 2014; and basements in 2020. It is recommended to bring all applicable GFCI outlets up-to-date regardless of when the home was built.

Observations of a Representative Sampling:
- Electrical outlets and lights are functional and noted in satisfactory condition.
- Outlets near water sources are GFCI protected.
- Outlets (near water sources) in bathrooms were tested as GFCI protected. GFCI protection and cutoffs in basement Main Electrical Service Panel, Left Panel, breaker no 9main electrical service panel. Additional GFCI protection for outlets is noted in the Main Electrical Service Panel, Left Panel, breaker no 15.
- Outlets (near water sources) in kitchen were tested as GFCI protected. Kitchen master GFCI outlets are protected by two GFCI outlets, both resident in the kitchen — one of the exterior wall controlling both outlets and the other on the left entrance to the kitchen (actually not near any water) serving as the master switch for the outlets near the inner wall sink.
- Basement GFCI is labeled Left Panel breaker no. 27.

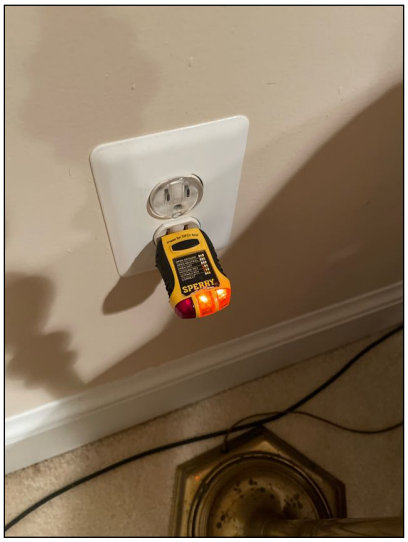
Interior Decorative Light (Entrance Hallway)

Interior Decorative Light (Dining Room)

Interior Decorative Light

Interior Decorative Lights

Representative (1 of Several) Ceiling Fan & Light



Representative Electrical Outlet Testing Functional

Representative Electrical Outlet Testing Functional

Kitchen GFCI Master (Back Wall)

Kitchen GFCI Master (Inner Wall)

240 Volt Electric Dryer Outlet

Main Service Panel

The rubber meets the road with the Main Service Panel where the home inspector must be extra careful as well as extra diligent in the home inspection. The Main Service Panel is the junction of the public utility service lines and the home electrical system. High voltage, high amerage feeder lines connect to the home electrical system using varying amperage breakers and fuses which host a variety of wire sizes or wire gages. The service box itself, because of a misdirected "hot" wire, could actually be electrified. This is a real danger the home inspector must avoid, following established safety procedures.

The home inspector often takes the cover off the Main Service Panel, yet another dangerous action, as live wires with voltage up to 240 VAC and 200 amperage are literally within inches of the inspector's reach. Here the inspector is looking for solid connectivity while identifying the types and placement of wires. The inspector continues his inspection to the branch circuits where the inspector loooks at the various wires connected to the breakers/fuses, making sure the amperage fits the size of the breaker/fuse so as not to cause overloading which could cause a fire. The inspector looks for the connections of the wiring to the breakers and neutral panels as different size wires may cause a spark to jump within the panel. The inspector will check to ensure neutrals and grounds are not bonded together in the same lug, yet still bonded together on the same service bus to reduce the risk of electricution. Further, there must be a ground wire that exits the Main Service Panel and is appropriately grounded outside the home. And the list of inspection items continues as the home inspector performs a thorough inspection of the Main Service Panel noting the manufacturer, type of main sevice conductors, amperage and voltage rating of the overall electrical service, main service disconnect and location, AFCI and GFCI breakers, and the presence of solid aluminum wiring.

All issues or concerns listed in the Main Service Panel section should be construed as current and a potential personal safety or fire hazard. Repairs should be a priority, and made by a qualified licensed electrician.

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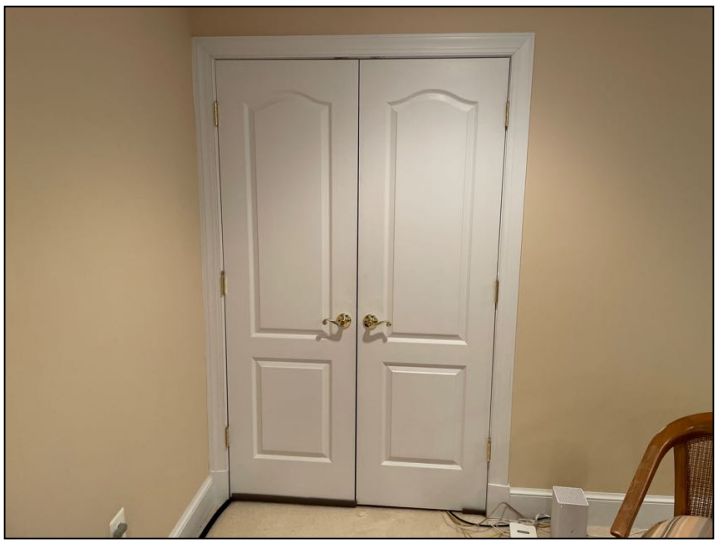
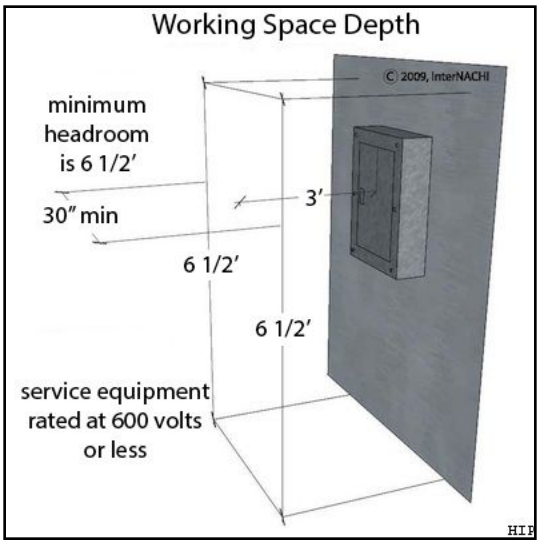
1. Location of Main Service Panel

A Basement Family Room (by Fireplace)
Adequate spacing around service panel is present.



Main Service Panel Decorative Housing

Main Service Panels



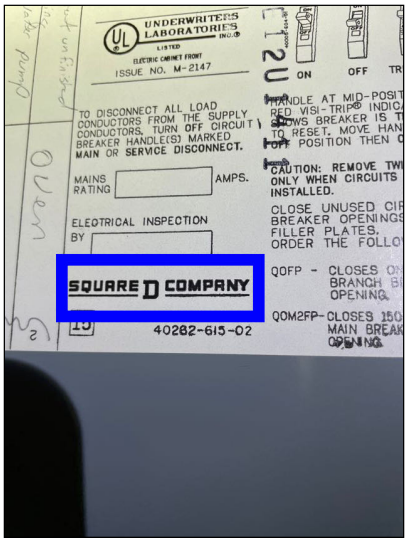
2. Service Panel

Manufacturer/Type: Square D

A Single Bus Panel -- A single bus panel has a single bus bar that runs the length of the electrical panel. Bus bars are metal bars inside an electrical panel that carry electrical current and hold the circuit breakers.

Observations:

- Two main service panels are present.
- Panel(s) appears functional and in satisfactory condition. Panel cover was removed yielding detailed inspection of main service wiring, branch service wiring, breakers, and bonding.
- Panel Age: Original
- MESSAGE: The breaker panel is essentially a big switch filled with other smaller switches. The smaller switchers — breakers — control the power in all aspects of the building. They're similar to the switches inside a living room. Flip with the switch on the wall, and you've got power and vice versa. As an added feature, these breakers perform a variety of safety services. They protect the wiring from overload, your home, and its occupants from fire and electrical shock.



Main Service Panel Manufacturer

Main Service Electrical Panels -- Covers Open

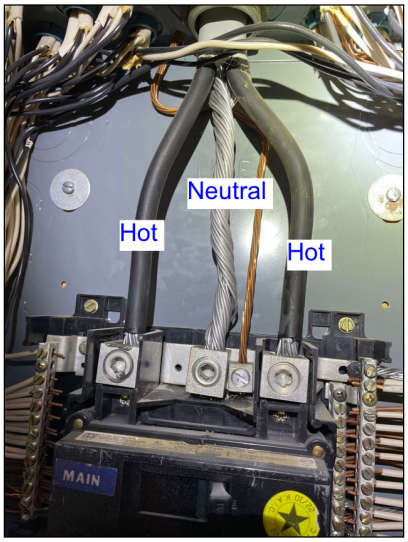
3. Main Service Wiring

Type of Wiring: Aluminum (acceptable and common in main service wiring)

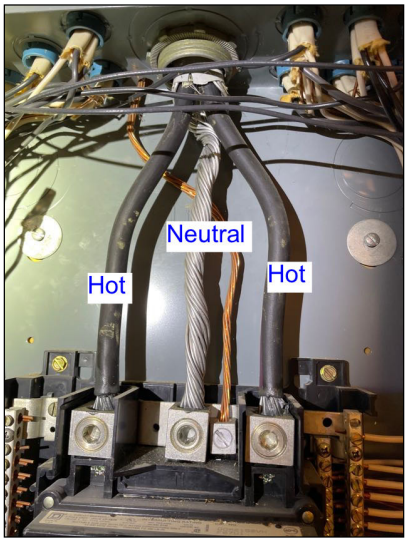
A

Observations:

• Main service wiring appears in satisfactory condition and installed correctly. Main service wiring refers to the wiring coming from the utility company to the home. Generally there are three wires, two 120 volt (hot) wires, one grounded neutral wire, with wires usually being multi-strand aluminum. The neutral wire will generally be bare and the two 120 volt wires insulated.



Main Service Wiring — Left Panel



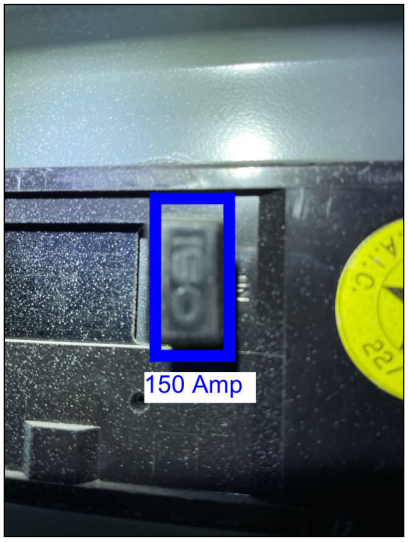
Main Service Wiring — Right Panel

4. Maximum Service Capabilities

A

• Each of the two Main Service Panels are 240 VAC and 150 Amps.
• Maximum Voltage: 240 VAC; displayed on the external Electrical Utility Box.
• Maximum Amperage: 150 Amps; displayed on the Main Service Disconnect.

Electrical Utility Box With Noted Voltage (Volts Alternating Current)

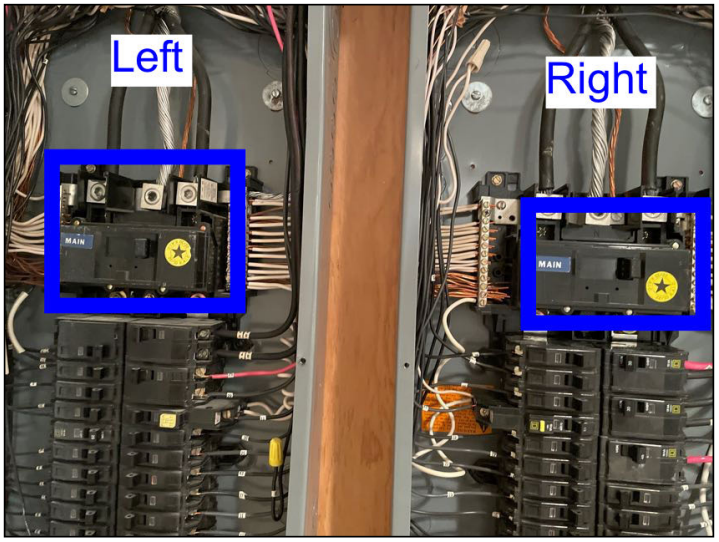


5. Main Service Disconnect

A

• Single bus panel disconnect presented as a breaker at main service panel for shutting off power to the home. To disconnect the breaker, use hand movement to move the switch to the off position.

Main Service Disconnect -- Covers On



Main Service Disconnects -- Covers Removed

6. Branch Service Wiring & Breakers

A

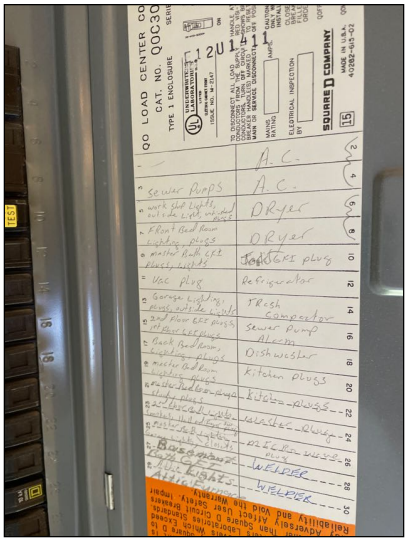
- Type of Conductor:
- Romex Wire Conductor: Non-metallic electrical cable sheathing; a common type of residential wiring that is used for most lighting and outlet circuits
- Type of Wire:
- Copper

Observations:

- Panel circuit breakers and wiring viewed in satisfactory condition using normally accepted practices.
- Identification of breakers is present.
- MESSAGE: The breaker panel is essentially a big switch filled with other smaller switches. The smaller switchers — breakers — control the power in all aspects of the building. They're similar to the switches inside a living room. Flip with the switch on the wall, and you've got power and vice versa. As an added feature, these breakers perform a variety of safety services. They protect the wiring from overload, your home, and its occupants from fire and electrical shock.

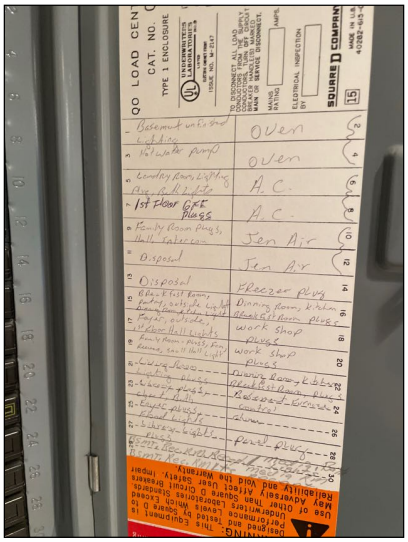
Branch service ground and neutral wires must be connected to a neutral busbar in the main service panel. Each neutral and ground should logically be tied in a separate busbar slot. The main service panel is grounded to the neutral busbar via a grounding screw. Various rules exist regarding branch service wiretapping into the neutral busbar, depending on the panel manufacturer and NEC (National Electrical Code) guidance. A certified electrician should be consulted for adherence to NEC (National Electrical Code) guidance.

Left Panel Branch Circuit Wiring and Breakers -- Cover On

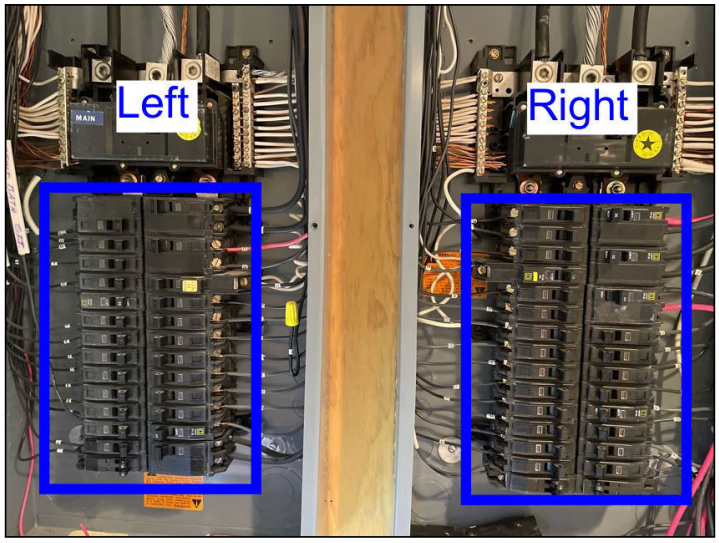


Left Panel Main Service Panel Breaker(s) Identification

Right Panel Branch Circuit Wiring and Breakers -- Cover On



Right Panel Main Service Panel Breaker(s) Identification



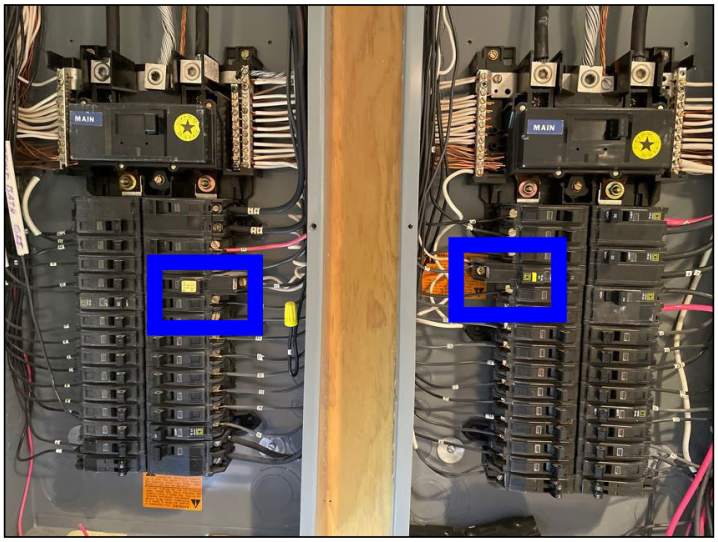
Left and Right Panels Branch Service Wiring & Breakers -- Covers Removed

7. GFCI Breakers

A

GFCI (Ground Fault Circuit Interrupter(s)) present in the main service panel, tripped when tested and reset properly. Breakers are identified by a tag name on the breaker and/or the telltale "pigtails".

Message: The ground-fault circuit interrupter, or GFCI, is a fast-acting circuit breaker designed to shut off electric power in the event of a ground-fault within as little as 1/40 of a second. It works by comparing the amount of current going to and returning from equipment along the circuit conductors.



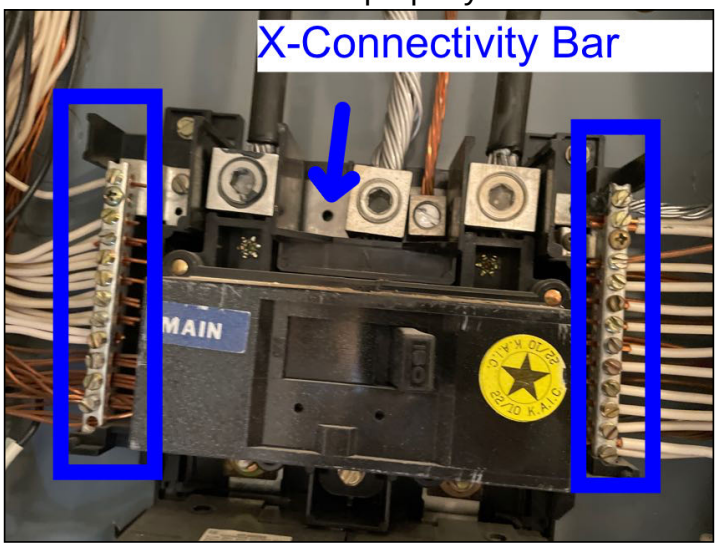
Main Service Panel GFCI Breakers

8. Service Panel Bonding

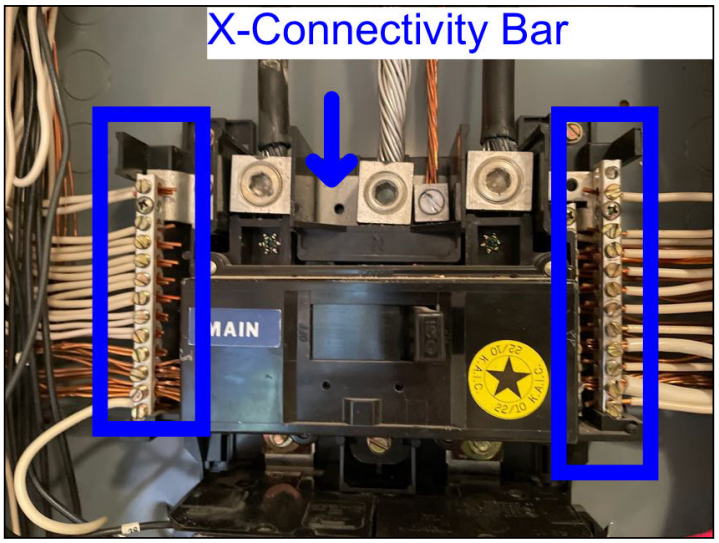
A

The main service panel is properly bonded as neutrals and grounds are bonded on the same grounding bar.

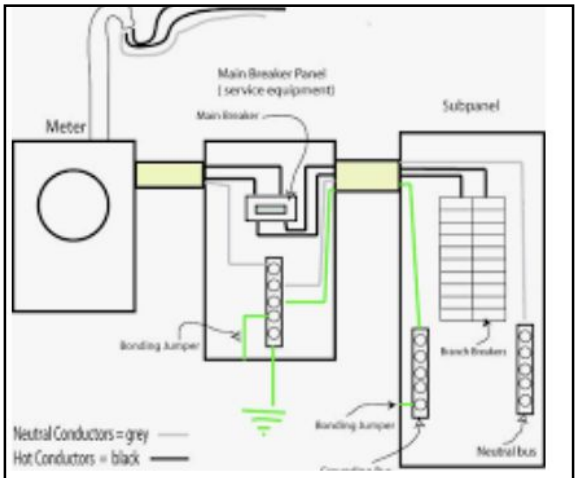
MESSAGE: Electrical bonding is the practice of intentionally electrically connecting all exposed metal items not designed to carry electricity in a room or building as protection from electric shock. Bonding and grounding work together to ensure all components are on a ground-fault path. This protects systems and personnel and helps circuit breakers and ground-fault detectors work properly.



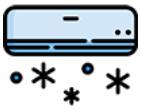
Main Service Panel Bonding -- Left Panel



Main Service Panel Bonding -- Right Panel



Electrical wiring ...



Air Conditioning -- Primary Unit

Air Conditioning is one of the major components of the HVAC (Heating, Ventliation, Air Conditioning) system. There are several types of air conditioning systems: window and portable, split systems also known as central air conditioning systems and mini-split systems. Window and portable systems will not be inspected. Most systems are central air conditioning systems providing cooling throughout the residence. The vast majority of systems are electric. Most Air Conditioning systems are part of a combined system with heating systems whereas the same distribution method (e.g., ventilation) is used, generally tubular or metal ducts. Split system air conditioning units do not require ducts.

The inspection of the air conditioning system is a visual inspection using normal operating controls. The inspection of the air conditioning is general and not technically exhaustive. The home inspector identifies the manufacturer of the air conditioning unit, model and serial number, unit age and approximate life cycle, and capacity as measured in tons or BTUs. The home inspector operates the system using normal operating controls and automatic safety controls. The home inspector evaluates the air conditioning distribution system and the presence of installed distribution sources. The temperature variance between just generated/released cooled air may be compared to air that has been circulated within the home and is being returned to the air conditioning system for recooling.

A general rule for home inspectors to avoid damaging the air conditioning unit is to not run the air conditioning system if the current outside temperature is less than 60 degrees at the time of inspection or dropped below about 50 degrees the night before, although it's satisfactory to operate the system if the temperature has warmed up during the day.

The average life expectancy of an air conditioning system is 15 - 20 years . Any system that is 15 years old should be closely monitored. Annual maintenance by a HVAC professional can extend the life of the unit.

.

1. Compressor

A

Observations:

• The external air conditioning (compressor) unit is a standard electric-based cooling unit. The unit consists primarily of a compressor, propeller fan, circuit board and condenser coil. The exterior unit is evaluated by the home inspector for operability and condition. The external air conditioning unit is often called the compressor or condenser.

The unit is a component of the overall HVAC system and is generally paired with a furnace which resides inside the home.

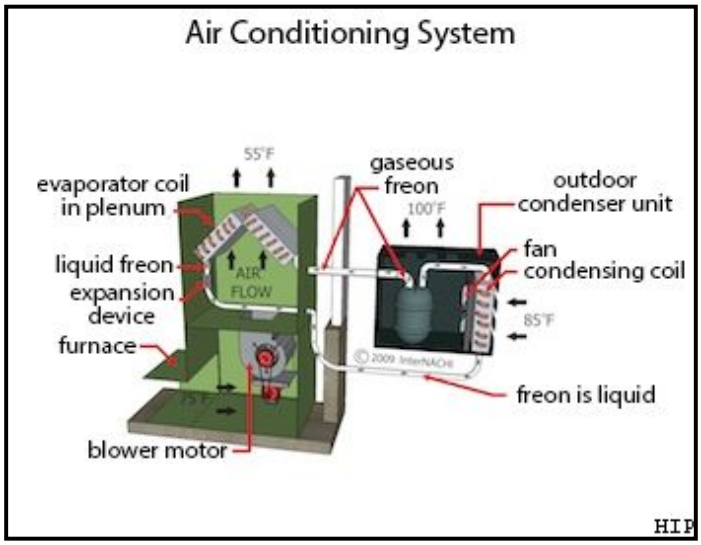
• Unit is located at the right side of residence

• Unit serves the 1st floor and basement

• The unit is supported by a ground pad which appears to be in good condition

• This Air Conditioning unit is paired to the heating unit located in the basement identified as Heating -- Primary Unit. Various system components are shared: Air Distribution/Handler, Duct Work, Return Air Supply, Filter, HVAC Sources, Thermostat. Please see the noted heating unit for this information.

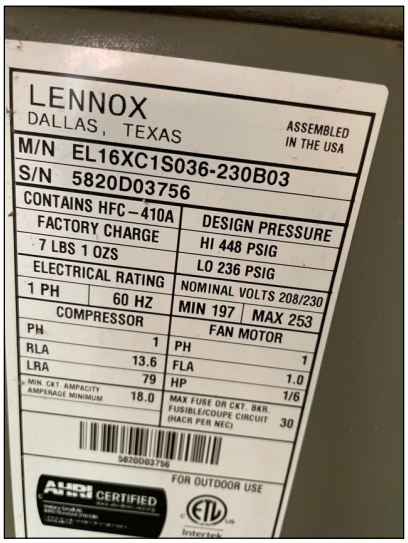
Air Conditioner Exterior Unit



2. Compressor Identification

A

Manufacturer: Lennox
Serial Number: 5820D03756
Model No: EL16XC1S036-230B03



Compressor Identification Tag

3. Compressor Age & Capacity

- Unit Age: 4 1/2 Years Old, Manufactured April 2020
- AC Capacity: 3 Tons
- Average life cycle of a standard AC unit: 15 - 20 years.

4. System Operation

A

- Compressor/Condenser unit was tested and noted as being functional and from outward appearances, is in satisfactory condition. The unit appears level and is functioning at a normal noise level during operation (i.e., no screeching, or clattering noises which indicate the compressor is failing).

5. Refrigerant Lines

A

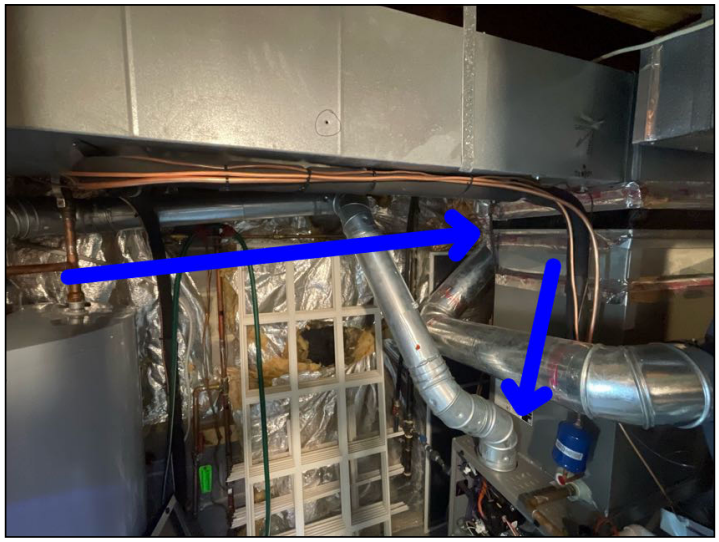
• External refrigerant line, key to the operation of an air conditioning unit, appears functional and in satisfactory condition. The full line of external facing insulation on the larger "suction" or return line is intact.

• Internal refrigerant line, key to the operation of an air conditioning unit, appears functional and in satisfactory condition.

• Message: Compressor Refrigerant lines need to be insulated for improved energy and thermal efficiency as well as condensation control. Without insulation around the low-pressure refrigerant line, condensation may form. The low-pressure refrigerant line will develop condensation that can cause moisture damage. To protect against condensation, the low-pressure refrigerant should be insulated.

Compressor Refrigerant Line (External)

Compressor Refrigerant Line (Internal to Evaporator)



Compressor Refrigerant Line (Internal to Evaporator)

6. Compressor Disconnect

A

Location & Type of Disconnect:

• Disconnect is within direct eyesight and short distance of unit.

• The disconnect must be within sight from the AC unit to prevent someone who doesn't know the technician is working on the unit from turning the power on causing unit damage or human life concerns.

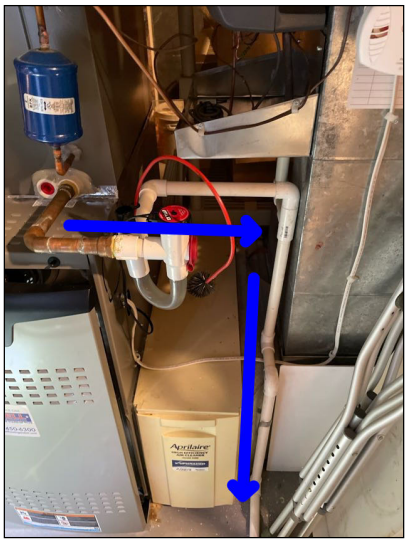
Air Conditioner Electrical Disconnect Box

Air Conditioner Electrical Disconnect

7. Condensation Outtake

A

• Condensation outtake (on the interior unit) appears functional with appropriate drainage connections
• MESSAGE: Every AC unit produces moisture as a normal byproduct of the cooling process. Water forms as condensation on the evaporator coil as the coil cools the warm air that blows over it.



Air Conditioning Condensation Line

Air Conditioning Condensation Line

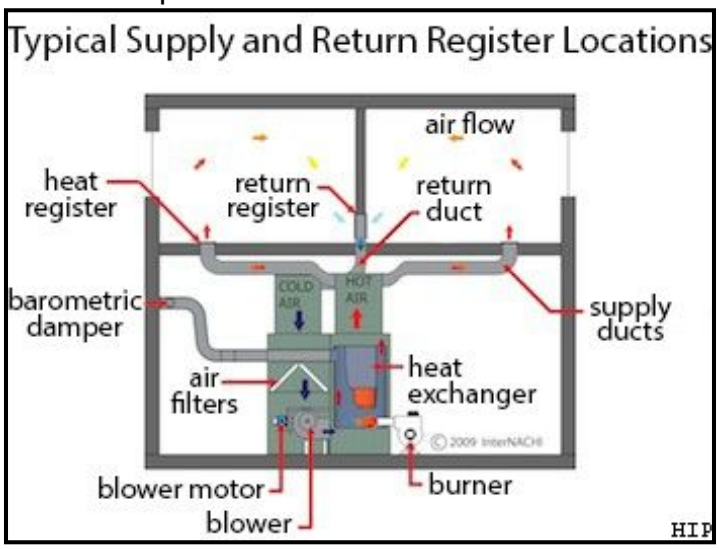
8. Temperature Differential (Air In & Out)

A

Temperature differential between system air output and return air: 20 degrees Fahrenheit.
MESSAGE: The typical temperature differential between the air flow and the return register is 16 - 22 degrees although newer homes tend to have a lower differential, perhaps 12 - 15 degrees. If the differential is outside this range, it is advised to engage an HVAC specialist to evaluate the unit and make necessary adjustments/repairs.

Air Conditioner Return Air Temperature

Air Conditioner Output Temperature



Air Conditioning -- Unit No 2

1. Compressor

A

Observations:

• The external air conditioning (compressor) unit is a standard electric-based cooling unit. The unit consists primarily of a compressor, propeller fan, circuit board and condenser coil. The exterior unit is evaluated by the home inspector for operability and condition. The external air conditioning unit is often called the compressor or condenser.

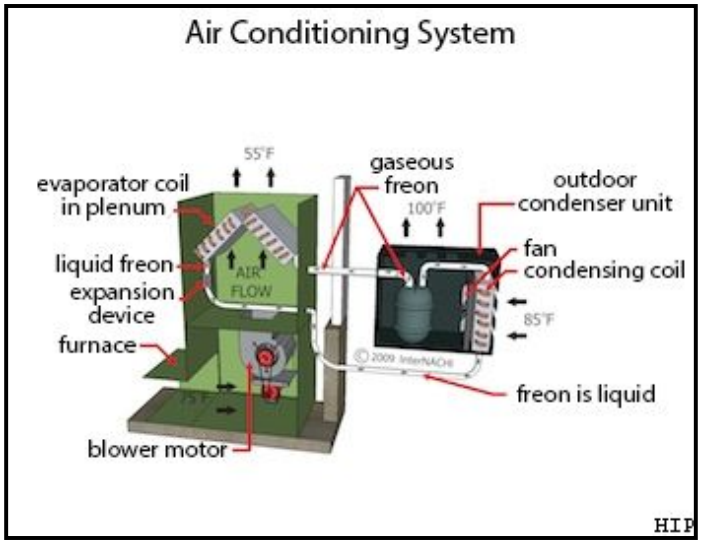
The unit is a component of the overall HVAC system and is generally paired with a furnace which resides inside the home.

• Unit is located at the side of residence

• The unit is supported by a ground pad which appears to be in good condition

• This Air Conditioning unit is paired to the heating unit located in the attic identified as Heating -- Unit No 2. Various system components are shared: Air Distribution/Handler, Duct Work, Return Air Supply, Filter, HVAC Sources, Thermostat. Please see the noted heating unit for this information.

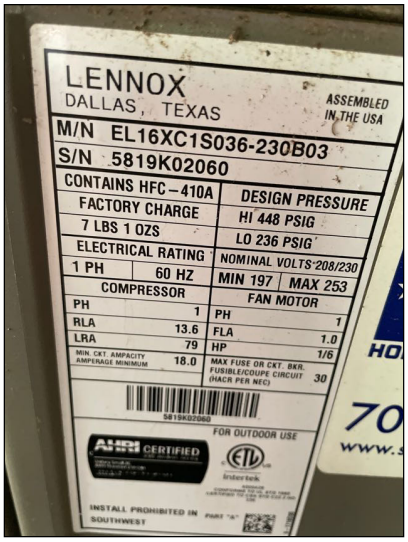
Air Conditioner Exterior Unit



2. Compressor Identification

A

Manufacturer: Lennox
Serial Number: 5819K02060
Model No: EL16XC1S036-230B03



Compressor Identification Tag

3. Compressor Age & Capacity

- Unit Age: 5 Years Old, Manufactured October 2019
- AC Capacity: 3 Tons
- Average life cycle of a standard AC unit: 15 - 20 years.

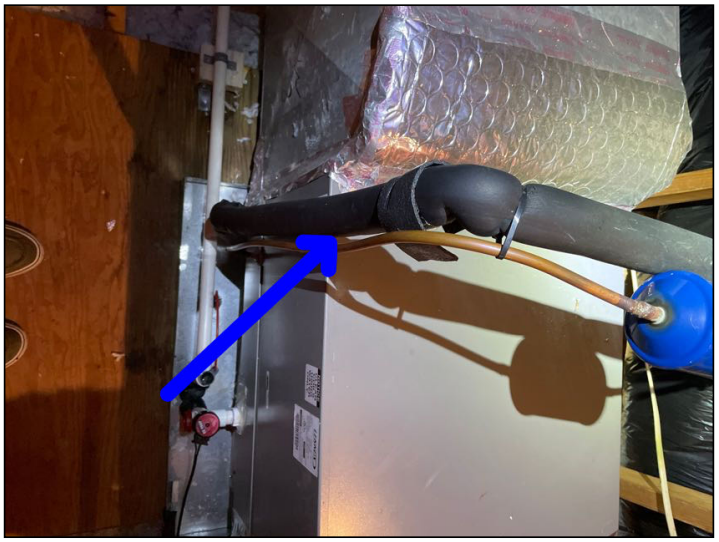
4. System Operation

A • Compressor/Condenser unit was tested and noted as being functional and from outward appearances, is in satisfactory condition. The unit appears level and is functioning at a normal noise level during operation (i.e., no screeching, or clattering noises which indicate the compressor is failing).

5. Refrigerant Lines

A • External refrigerant line, key to the operation of an air conditioning unit, appears functional and in satisfactory condition. The full line of external facing insulation on the larger "suction" or return line is intact.

Compressor Refrigerant Line (External)



Compressor Refrigerant Line (Internal to Evaporator)

6. Compressor Disconnect

A

Location & Type of Disconnect:
• Disconnect is within direct eyesight and short distance of unit.

Air Conditioner Electrical Disconnect Box

Air Conditioner Electrical Disconnect

7. Condensation Outtake

A

• Condensation outtake (on the interior unit) appears functional with appropriate drainage connections
• MESSAGE: Every AC unit produces moisture as a normal byproduct of the cooling process. Water forms as condensation on the evaporator coil as the coil cools the warm air that blows over it.

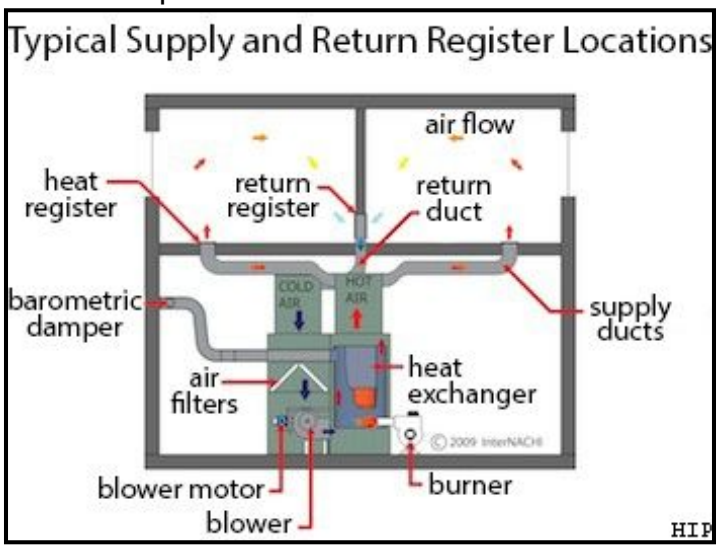
8. Temperature Differential (Air In & Out)

A

Temperature differential between system air output and return air: 21.7 degrees.
MESSAGE: The typical temperature differential between the air flow and the return register is 16 - 22 degrees although newer homes tend to have a lower differential, perhaps 12 - 15 degrees. If the differential is outside this range, it is advised to engage an HVAC specialist to evaluate the unit and make necessary adjustments/repairs.

Air Conditioner Return Air Temperature

Air Conditioner Output Temperature



Heating -- Primary Unit

The heating system is one of the major components of the Heating, Ventilation and Air Conditioning (HVAC) sytem. There are a variety of heating systems present in residences with the most prevalent being furnaces. Other systems include boilers, mini-splits, and baseboard heaters. Various fuel types include natural gas, propane, fuel oil, electricity, solar and geothermal. Heat distribution of these systems varies with the most common being forced air through metal or tubular ducts. Mini-splits do not reqire ducts. Other distribution methods include hot water and steam through radiators and hot water tubing through baseboard heating. It is common to find a combination of a gas-fired furnace and a heat pump with the heat pump used to heat upper floors.

Gas furnaces are generally rated as 80 percent mid-efficiency or 96 percent high-efficiency. High efficiency furnaces will yield cost savings in fuel consumption. The home inspector will identify whether a gas furnace is a mid- or high-efficiency unit.

The inspection of the heating system is a visual inspection using only the normal operating controls for the system. The inspection is general and not technically exhaustive. A detailed evaluation of the interior components of the heating system is beyond the scope of a home inspection as a close inspection would require significant unit dismantling and disassembly which should only be performed by a qualified HVAC specialist.

The home inspector will describe energy sources, and permanently installed heating equipment that is central to the residence, and distribution methods. The home inspector will operate the systems using normal operating controls. The home inspector will observe automatic safety controls, flues and vents. The home inspector will seek out the the presence of an installed heat sources (e.g., registers).

The average life expectancy of a heating system is estimated from 15 to 25 years with some units lasting 30 years. The heating system should be serviced annually by a HVAC professional technician.

.

1. Type of Unit

A
- Heating system is a gas furnace, forced hot air.
- The heating unit is a mid-efficiency furnace with a 80% Annual Fuel Utilization Efficiency (AFUE) rating. In this type of furnace, 20% of the energy produced is expelled as exhaust.
- The owner shared that the HVAC system is under an annual maintenance contract: Air Conditioner in the Spring; Furnace in the Fall. The units were serviced September 23, 2024.

Furnace

Furnace With Cover Removed

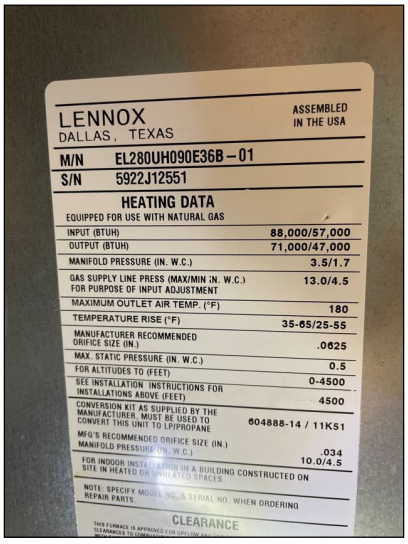
2. Unit Location & Area Served

Location: Basement
Unit serves the 1st floor and basement
This unit is paired to the air conditioner identified as Air Conditioning -- Primary Unit.

3. System Identification

A

Manufacturer: Lennox
Serial Number: 5922J12551
Model Number: EL280UH090E36B-01



Heater/Furnace Identification Sheet

4. System Age & Capacity

• RECENTLY REPLACED
Age: Unit is 2 years old. Manufactured September 2022. Average functioning age of a gas furnace is 18 - 20 years.

• Heating System Capacity: 88,000 BTUs. A BTU is the amount of water energy needed to cool or heat one pound of water by one degree Fahrenheit.

• Many variables contribute to the most appropriate sizing of a heating unit to include: US zone, home energy efficiency, square footage, cubic footage/ceiling height, age of home, energy efficiency, size of the basement and insulation. An HVAC specialist should be consulted for appropriate heating unit sizing guidance.

5. System Operation

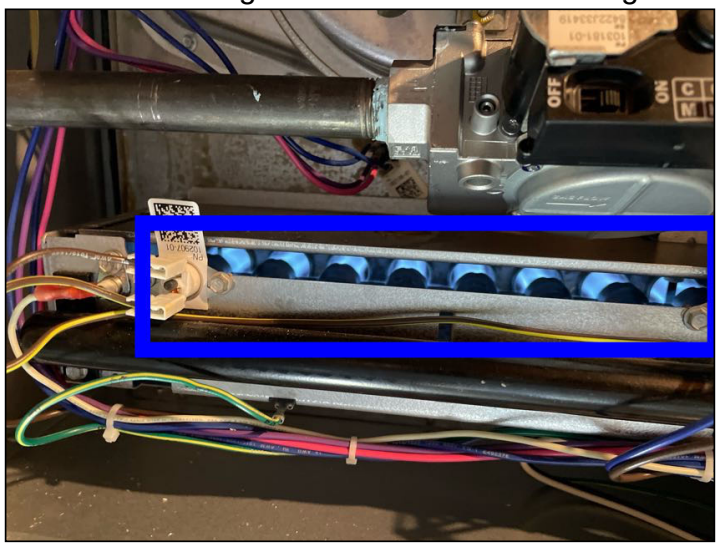
Observations

A

• Heating system was inspected using normal operating controls and found to be functional and in acceptable condition.

• The gas burners of the heating system are functional.

• Blue burner flame is noted indicating that furnace is combusting fuel efficiently.



All Furnace Burners Operational

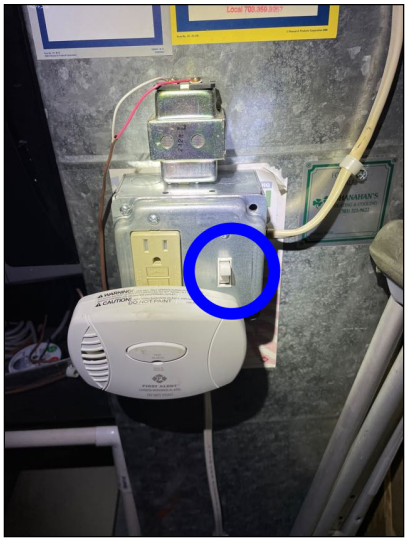
6. Emergency Shutoff

Observations:

A

• Heating system emergency shutoff switch is located in direct sight of and by the unit.

• The unit is not marked as the emergency shutoff switch. Recommend replacing with a cover plate designated as an Emergency Shutoff or apply red tape as a designator.



Emergency Shutoff Switch

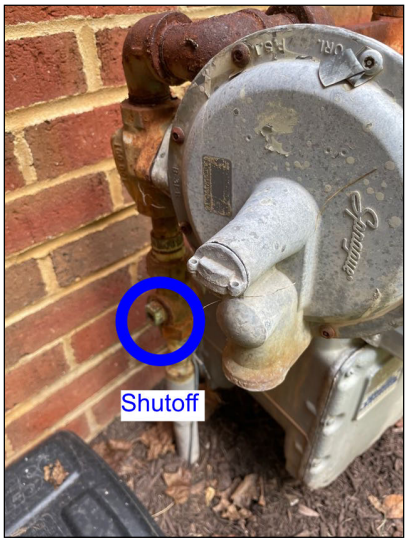
7. Fuel

A

Type & Location of Fuel Source:
- Natural Gas
- Gas meter located at side of home
- Main gas meter shutoff located at gas meter

Observations:
- Main gas meter and shutoff appear in satisfactory condition.

Gas Meter

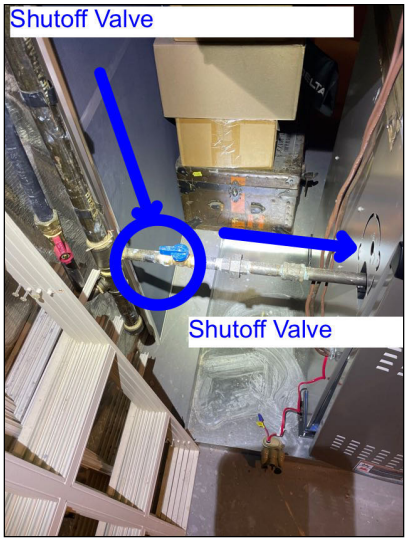


Gas Meter Shutoff Valve

8. Fuel Delivery Line

A

Type of Delivery Line:
- Black Iron; threaded, black in color; similar to galvanized steel but without zinc corrosion protection. Black iron pipe is the most preferred pipe for natural gas lasting 75 years or more. The pipe is seamless, making it less prone to gas leaks.
- Galvanized Steel; Lifespan of 30 - 60 years. Galvanized steel is hard to scratch and is difficult to bend. Galvanized steel is magnetic; joints are threaded; silver/gray in color. Similar to Black Iron but has zinc corrosion protection. The zinc coating results in a smoother and higher quality finish.



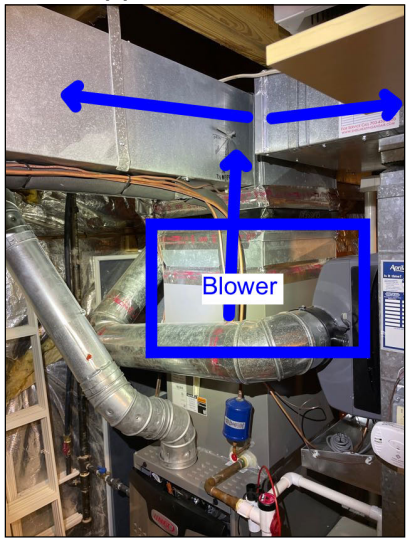
Fuel Delivery Line and Shutoff Valve

9. Blower & Ductwork

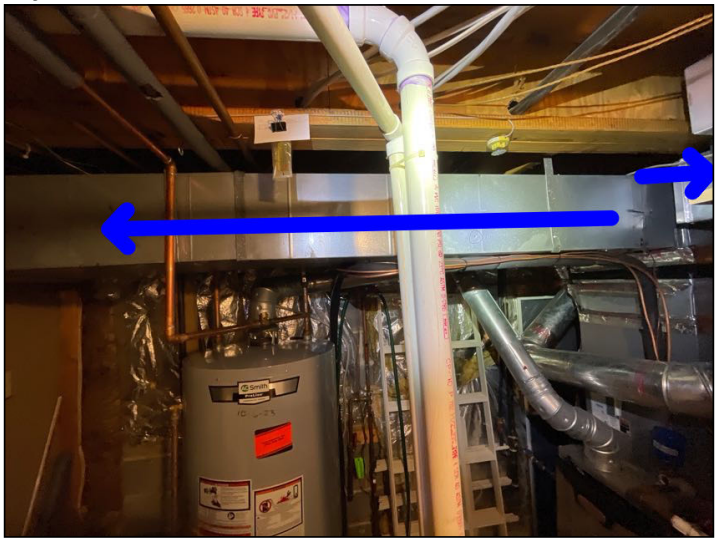
A

Observations:
• Blower Unit, located immediately in-line after the furnace, appears functional although inspection is not performed as the unit is enclosed. The blower unit serves both the furnace and the air conditioning units. The AC's evaporator coil is generally located in the air blower unit.

Observations:
• Type Conduit: Metal Duct
• Ductwork appears functional and in satisfactory condition.



Air Blower Unit & Ductwork



Observable Ductwork

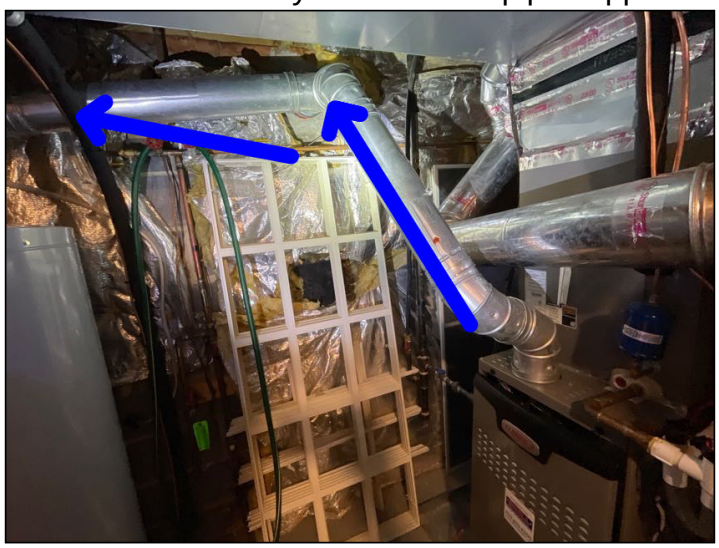
Observable Ductwork

10. Venting System

A

Type: Metal Type B (double wall) vent pipe noted for gas appliance. Double walls have an air space which keeps the outer pipe cool otherwise a single-wall pipe would create a fire hazard. Mid-efficiency furnaces require a metal B-Vent exhaust vent.

Observations:
• The visible portions of the mid-efficiency furnace vent pipes appeared functional.



Furnace Venting Tube

11. Return Air Supply

A

• The return air supply system appears to be functional.
• Message: For your furnace to run efficiently and your home to heat evenly, this airflow must be in balance. In other words, the amount of air that your furnace “breathes in” (returns) must equal the amount of air it “breathes out.” Air returns are what allow your furnace to “inhale” your home's air.

Return Air Supply System

12. Filter

A

• Furnace filter is directly between the return air system and the furnace.
• Furnace filter looks clean.
• MESSAGE: The air filter should be inspected at least monthly and cleaned or replaced as required. There are two types of filters commonly used: (1) Washable filters, (constructed of aluminum mesh, foam, or reinforced fibers) these may be cleaned by soaking in mild detergent and rising with water. Or (2) Fiberglass disposable filters that must be REPLACED before they become clogged. Remember that dirty filters are the most common cause of inadequate heating or cooling performance. A wet filter can be a source of mold.

Furnace Filter Housing

Furnace Filter -- Clean

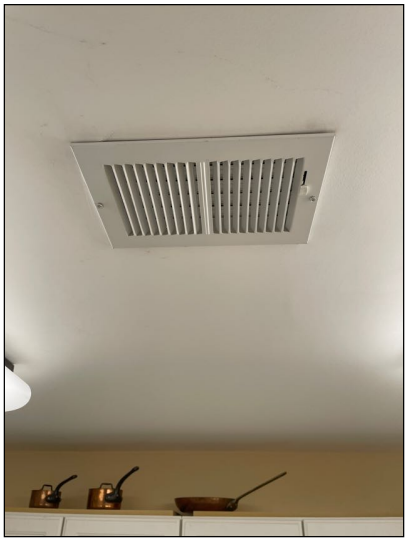
13. HVAC Sources

A

Type of HVAC: HVAC Registers

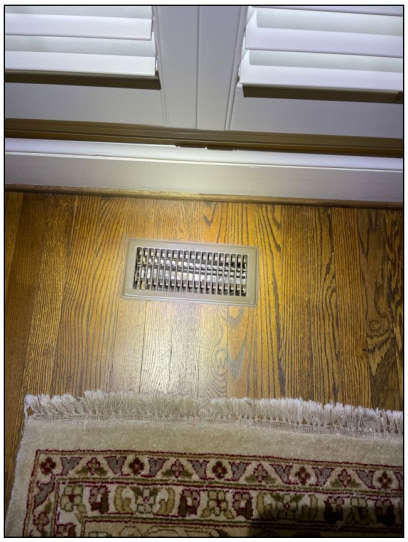
Observations:
• HVAC registers as functional and in satisfactory condition

HVAC Return Air Vent



Representative HVAC Register

Representative HVAC Register



Representative HVAC Register

14. Thermostat

A

Observations:
- Location of Thermostat: Foyer Area
- Thermostat(s) tested and in working order.
- MESSAGE: Thermostat(s) controls both air conditioning and heating temperature adjustments.


Honeywell Home
HOME
FAN
SYSTEM
MENU
Tue, Sep 24, 2024
12:55 pm
INDOOR
72°
60% Humidity
SET TO
75°
OUTDOOR
63° / 95% Humidity
STATUS
cool mode
Permanent Hold
(press for options)

Thermostat

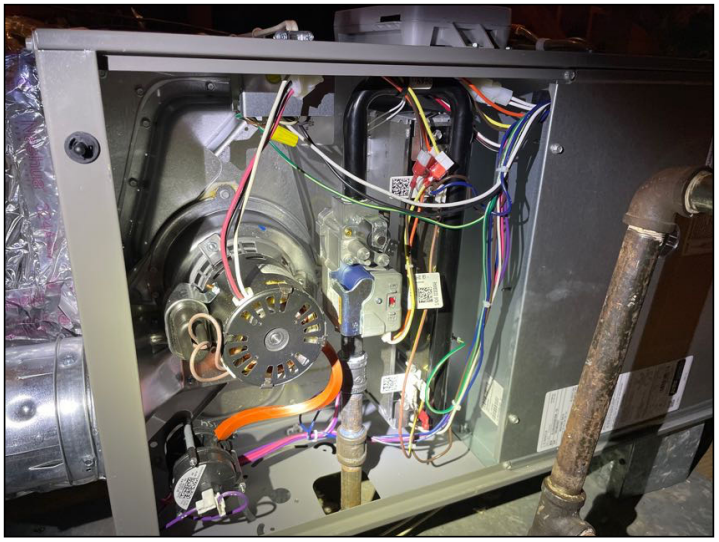
Heating -- Unit No 2

1. Type of Unit

A

- Heating system is a gas furnace, forced hot air.
- The heating unit is a mid-efficiency furnace with a 80% Annual Fuel Utilization Efficiency (AFUE) rating. In this type of furnace, 20% of the energy produced is expelled as exhaust.
- MESSAGE: An annual HVAC service contract is recommended.

Furnace



Furnace With Cover Removed

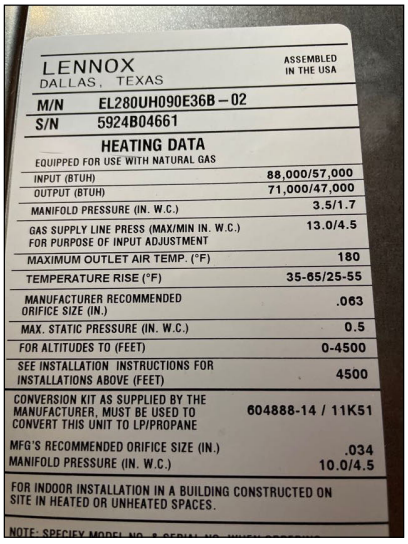
2. Unit Location & Area Served

Location: Attic
Unit serves the 2nd floor only
This unit is paired to the air conditioner identified as Air Conditioning -- Unit No 2.

3. System Identification

A

Manufacturer: Lennox
Serial Number: 5924B04661
Model Number: EL280UH090E36B-02



LENNOX
DALLAS, TEXAS
ASSEMBLED IN THE USA

M/N EL280UH090E36B–02
S/N 5924B04661

HEATING DATA
EQUIPPED FOR USE WITH NATURAL GAS

INPUT (BTUH)	88,000/57,000
OUTPUT (BTUH)	71,000/47,000
MANIFOLD PRESSURE (IN. W.C.)	3.5/1.7
GAS SUPPLY LINE PRESS (MAX/MIN IN. W.C.) FOR PURPOSE OF INPUT ADJUSTMENT	13.0/4.5
MAXIMUM OUTLET AIR TEMP. (°F)	180
TEMPERATURE RISE (°F)	35-65/25-55
MANUFACTURER RECOMMENDED ORIFICE SIZE (IN.)	.063
MAX. STATIC PRESSURE (IN. W.C.)	0.5
FOR ALTITUDES TO (FEET)	0-4500
SEE INSTALLATION INSTRUCTIONS FOR INSTALLATIONS ABOVE (FEET)	4500
CONVERSION KIT AS SUPPLIED BY THE MANUFACTURER, MUST BE USED TO CONVERT THIS UNIT TO LP/PROPANE	604888-14 / 11K51
MFG'S RECOMMENDED ORIFICE SIZE (IN.)	.034
MANIFOLD PRESSURE (IN. W.C.)	10.0/4.5

FOR INDOOR INSTALLATION IN A BUILDING CONSTRUCTED ON SITE IN HEATED OR UNHEATED SPACES.

NOTE: SPECIFY MODEL NO. & SERIAL NO. WHEN ORDERING

Heater/Furnace Identification Sheet

4. System Age & Capacity

• RECENTLY REPLACED
Age: Unit is 7 months old. Manufactured February 2024. Average functioning age of a gas furnace is 18 - 20 years.

• Heating System Capacity: 88,000 BTUs. A BTU is the amount of water energy needed to cool or heat one pound of water by one degree Fahrenheit.

• Many variables contribute to the most appropriate sizing of a heating unit to include: US zone, home energy efficiency, square footage, cubic footage/ceiling height, age of home, energy efficiency, size of the basement and insulation. An HVAC specialist should be consulted for appropriate heating unit sizing guidance.

5. System Operation

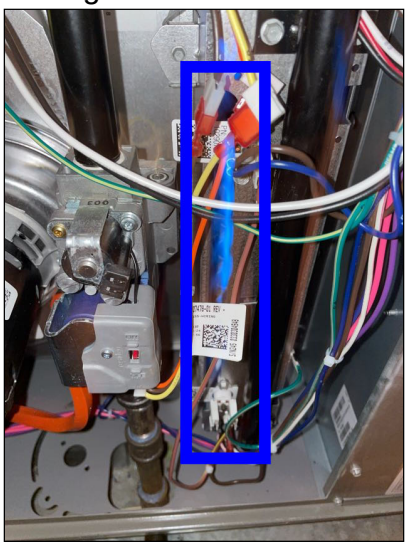
Observations

A

• Heating system was inspected using normal operating controls and found to be functional and in acceptable condition.

• The gas burners of the heating system are functional.

• Blue burner flame is noted indicating that furnace is combusting fuel efficiently.



All Furnace Burners Operational

6. Emergency Shutoff

Observations:

A

• Heating system emergency shutoff switch is located in direct sight of and by the unit.

• The unit is not marked as the emergency shutoff switch. Recommend replacing with a cover plate designated as an Emergency Shutoff or apply red tape as a designator.

Emergency Shutoff Switch

7. Fuel

A

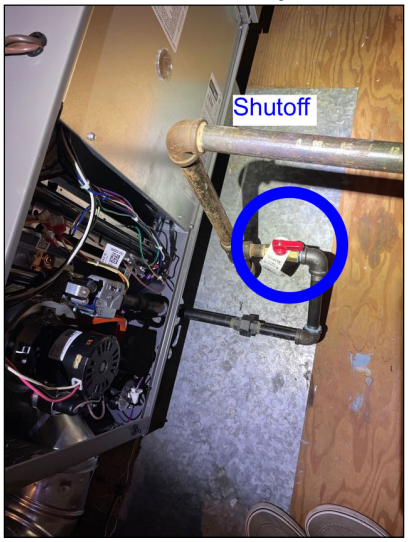
Type & Location of Fuel Source:
• Refer to Heating -- Primary Unit (Fuel)

8. Fuel Delivery Line

A

Type of Delivery Line:
• Black Iron; threaded, black in color; similar to galvanized steel but without zinc corrosion protection. Black iron pipe is the most preferred pipe for natural gas lasting 75 years or more. The pipe is seamless, making it less prone to gas leaks.

Observations:
• There is a gas shutoff valve on the fuel delivery line near the furnace.
• Delivery line appears functional and in satisfactory condition.



Fuel Delivery Line and Shutoff Valve

9. Blower & Ductwork

A

Observations:
• Blower Unit, located immediately in-line after the furnace, appears functional although inspection is not performed as the unit is enclosed. The blower unit serves both the furnace and the air conditioning units. The AC's evaporator coil is generally located in the air blower unit.

Observations:
• Type Conduit: Insulflex Duct
• Ductwork appears functional and in satisfactory condition.

Air Blower Unit

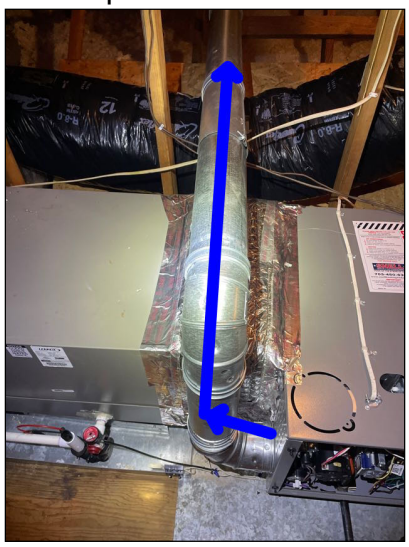
Observable Ductwork

10. Venting System

A

Type: Metal Type B (double wall) vent pipe noted for gas appliance. Double walls have an air space which keeps the outer pipe cool otherwise a single-wall pipe would create a fire hazard. Mid-efficiency furnaces require a metal B-Vent exhaust vent.

Observations:
• The visible portions of the mid-efficiency furnace vent pipes appeared functional.



Furnace Venting Tube

Furnace Venting Tube

11. Return Air Supply

• The return air supply system appears to be functional.

A • Message: For your furnace to run efficiently and your home to heat evenly, this airflow must be in balance. In other words, the amount of air that your furnace “breathes in” (returns) must equal the amount of air it “breathes out.” Air returns are what allow your furnace to “inhale” your home's air.

Return Air Supply System

12. Filter

• Furnace filter is directly between the return air system and the furnace.

A • Furnace filter looks clean.

• MESSAGE: The air filter should be inspected at least monthly and cleaned or replaced as required. There are two types of filters commonly used: (1) Washable filters, (constructed of aluminum mesh, foam, or reinforced fibers) these may be cleaned by soaking in mild detergent and rising with water. Or (2) Fiberglass disposable filters that must be REPLACED before they become clogged. Remember that dirty filters are the most common cause of inadequate heating or cooling performance. A wet filter can be a source of mold.

Furnace Filter Housing

13. HVAC Sources

Type of HVAC: HVAC Registers

A

Observations:
• HVAC registers as functional and in satisfactory condition

HVAC Return Air Vent

Representative HVAC Register

Representative HVAC Register

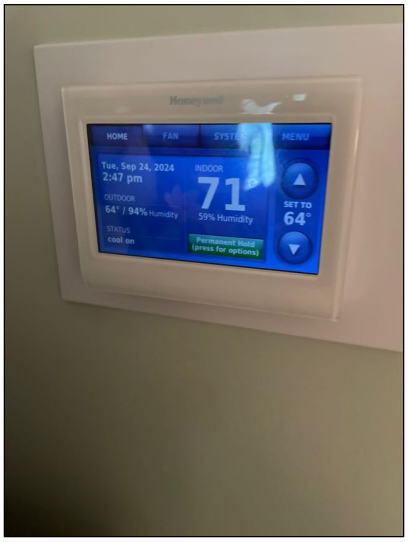
Representative HVAC Register

14. Thermostat

Observations:

A

• Location of Thermostat: Master Bedroom
• Thermostat(s) tested and in working order.
• MESSAGE: Thermostat(s) controls both air conditioning and heating temperature adjustments.


Honeywell
HOME
FAN
MENU
Tue, Sep 24, 2024
2:47 pm
INDOOR
71°
59% Humidity
SET TO
64°
OUTDOOR
64° / 94% Humidity
STATUS
cool on
Permanent Hold
(press for options)

Thermostat

Plumbing

Plumbing refers to the practice, materials and the collective system of piping, fixtures, appliances, equipment, fittings and components within a structure that are related to public or private water systems, sanitary drainage system, storm drainage, and venting systems. Piping, fittings, faucets and tanks that are used to supply, distribute, receive and transport potable water, liquid wastes and solid wastes are considered plumbing.

A plumbing fixture could refer to a receptacle or device that is either permanently or temporarily connected to the water distribution system of the home, and which demands a supply of water. Or the fixture could discharge wastewater, liquid-suspended waste materils or sewer to the drainage system of the home. Plumbing fixtures include water closets, urinals, bidets, lavoratories, sinks, showers, bathtubs and floor drains. Other plumbing fixtures evaluated include the connections for clothes washers, dishwashers, water heaters and garbage disposals.

The home inspector will identify if the potable water system is public or private and note the presence and location of the main water shut-off valve. The inspector will flush toilets, operate a representative sampling of interior water supplies including fixtures and faucets, and inspect sump and grinder pumps, and the condition of commodes (e.g., cracks and proper mounting). The inspector will inspect and report any deficiencies in the water supply by viewing the functional flow of two fixtures operated simultaneously.

The home inspector will visually inspect plumbing areas as a source of water leaks. If an area is moist and/or discolored, moisture damage may already be in progress. Given the dependence of water/moisture for mold growth, the inspector will report the presence of mold-like substances found in moisture-noted areas of the home. It should be noted that should apparent mold be noted, it cannot be confirmed without the benefit of sampling, logically performed by a certified mole inspector.

A thermal imaging imaging scanner is often used by the inspector to help detect water leaks by capturing and displaying thermal images. When there is a water leak, the water can cause a temperature difference in the surrounding areal, which an infrared camera can detect and display as a visua image. When used, the inspector generally presents an image of the area to be viewed, accompanied by an infrared scan of the same area looking for temperature anomolies which may indicate the pressence of water, possibly caused by a leak. If no leaks are detected, it will be noted.

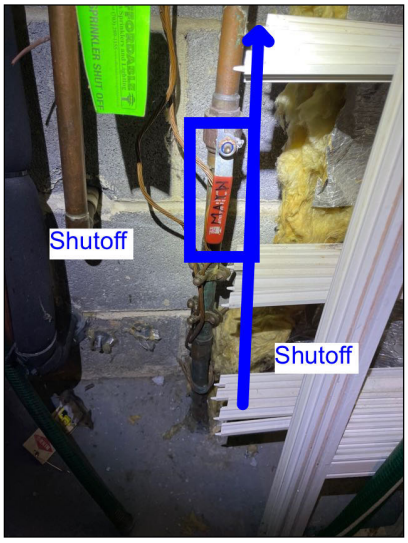
.

1. Main Service Line & Shutoff

A

Source:
• Water source is Public; shutoff located in the Basement where the utility line enters the residence. Location: . The utility water supply line is the main water line that allows water to enter your property. The public main water distribution line, typically located under the roadway or residence yard, at a depth that prevents freezing, connects directly to the residence water supply line.

Observations:
• The condition of the observable Utility Company's Main Service Line appears in good condition. The observed line, however, represents only a small portion of the Utility Company's Main Service Water Line which is buried from the Utility primary water line to the residence and is not observable.
• The main water supply shut-off valve, located in close proximity where the utility water line enters the residence, was visually inspected and appeared to be in serviceable condition. The shut-off valve was intentionally not operated.
• Type of Main Service Line (from Utility Company to Inside Residence):
• Copper pipes: These are the most commonly used material for service pipes for decades; relatively resistant to corrosion. Scraped area copper in color; not magnetic. Lifespan 70 - 80 years.



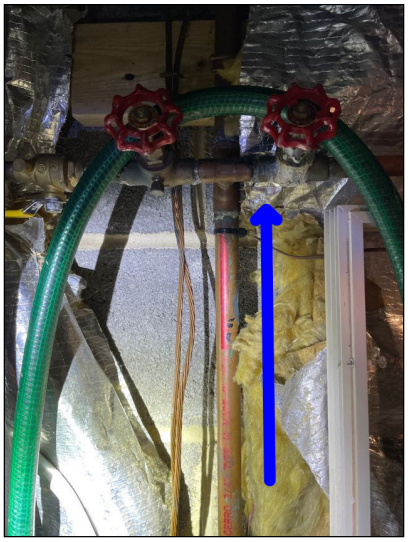
Main Service Line

2. Delivery Water Lines

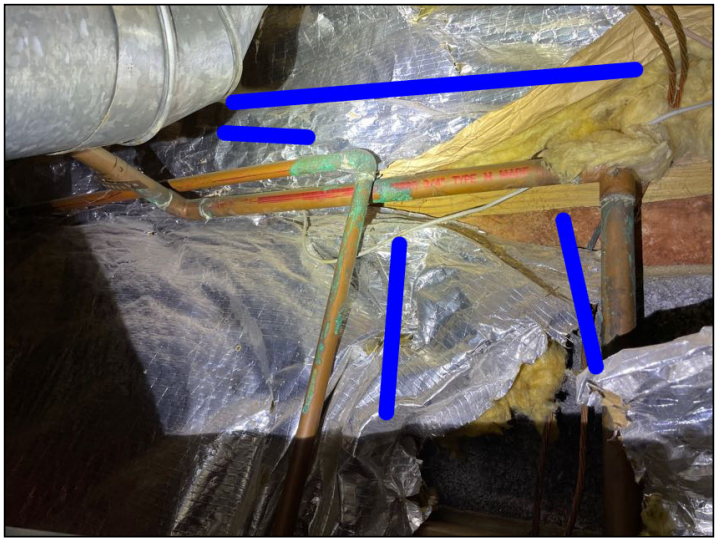
A

• The type of in-house delivery water line connected to the utility company main service line is noted. Other plumbing materials may be present but were not observed during the time of inspection.
• Copper pipes; These are the most commonly used material for service pipes for decades; relatively resistant to corrosion

Observations:
• In-house delivery water line connected to Utility Company main service line through a coupling is noted as functional and in satisfactory condition with no noted leaks.



In-house Delivery Water Line Connected to Utility Company Main Service Line



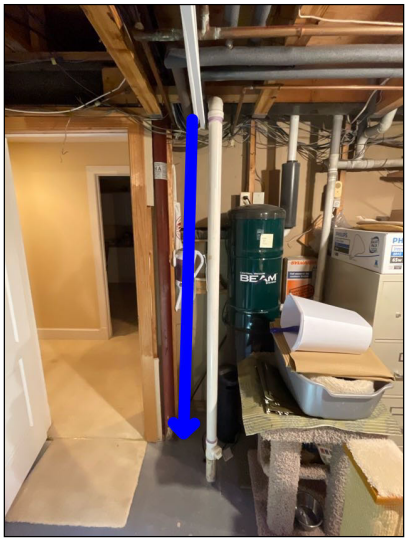
In-house Delivery Water Line

3. Drainage Water Line

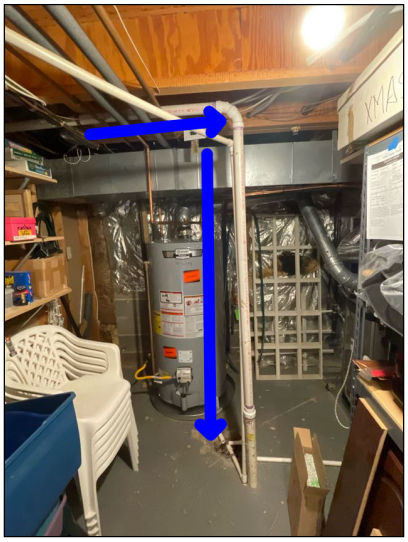
A

Type of Drain/Waste Line: PVC (Polyvinyl chloride): a white plastic piping used in DWV piping. Uses mechanical solvent-welded no-hub joints. PVC plumbing pipes are known for their versatility, lightweight, and blockage resistance. PVC piping is generally used as part of a sink, toilet, or shower drain line as well as main drain lines.

Observation:
• Observable drainage water lines are noted as functional and in satisfactory condition.



Drainage Water Line



Drainage Water Line

4. Service Cap

A

Accessible: Right Side Yard
Accessible: Inside Location: Basement Utility Room

Observations:
• External service cap in good condition
• Internal service cap in good condition
• DESCRIPTION: The external plumbing service cap is a cap, generally PVC, over a stem line that runs to the sewage line (i.e., sewer cleanout). Removing the cap allows an auger or snake to be inserted into the line and the cable is pushed through the sewer lines to remove blockages, both back to the house and out to the main sewer line.

External Plumbing Service Cap

Internal Plumbing Service Cap

Typical Service Cap For Plumbing Cleanout

5. Sump Grinder Pump Location & Condition

NI

• Inactive: Sump Grinder Pump, also called a grinder pump or macerator pump, is located in the basement utility room.

Sump Grinder Pump is inactive. Not used.

Assembly leads this inspector to believe the inactive unit was a sump grinder pump vs a sump pump.

• MESSAGE: Sump Grinder Pump is like a sump pump except water flowing into the container is gray water, or drainage from the clothes washer, laundry tub or sewer content from a below-surface bathroom. Often there are two PVC pipes; one for discharging the gray water, the other for venting. Venting should continue through the exterior of the home. Recommend backing up the sump grinder pump in case of failure with either a battery backup system or a water-powered sump pump. The average life cycle of a sump grinder pump is 7 - 10 years.

Sump Grinder Pump

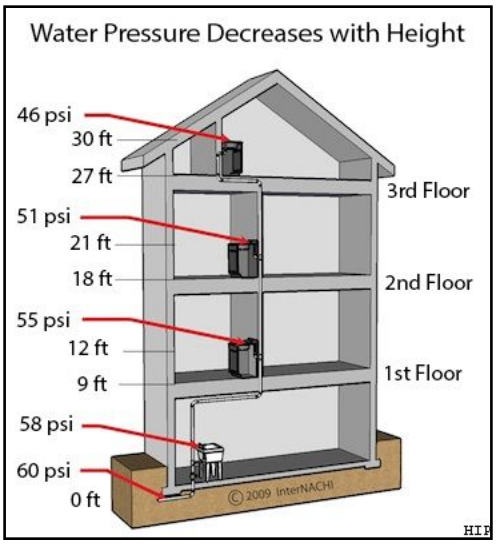
6. Water Pressure Measurement

A

• Water pressure is 75 PSI. Water pressure should be between 40 - 80 PSI. Water pressure will be lower on higher floors as pressure is reduced as the water is pushed higher within the home.

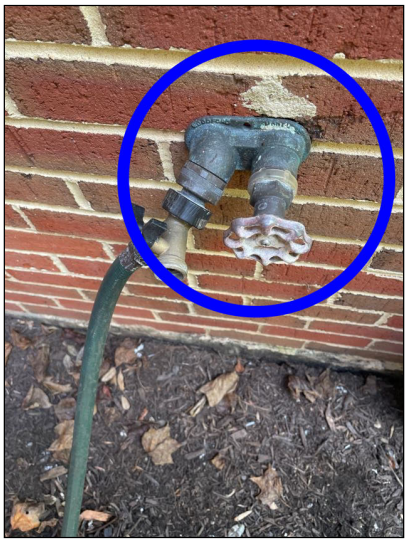
• Additional Gauge: Satisfactory water pressure was manually validated by running multiple water fixtures (sink faucet, toilet and shower) in same area simultaneously.

Water Pressure

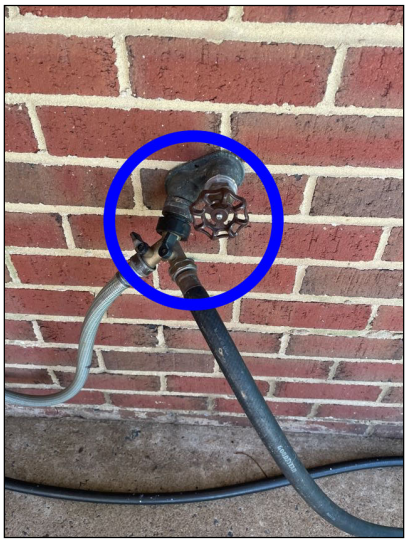


7. Spigots/Hose Bibs

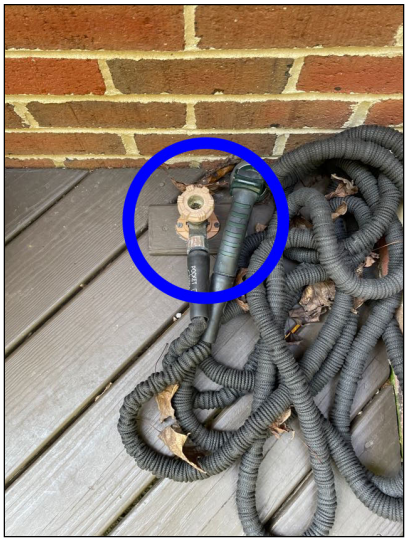
A Type: 3 external spigots were noted. (Also called bibs, silcocks). Rear deck spigot is actually an extension of the rear ground level spigot.
Standard spigot



Front Spigot



Rear Spigot — Also Feeds Rear Patio Spigot



Rear Spigot — From Rear Ground Level Spigot

8. Dishwasher Discharge Prevention

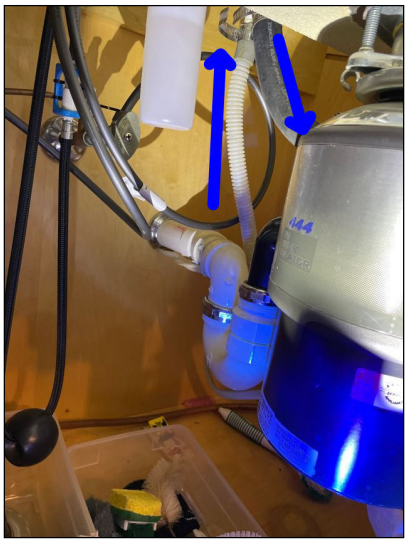
A

Anti-Siphon Device:

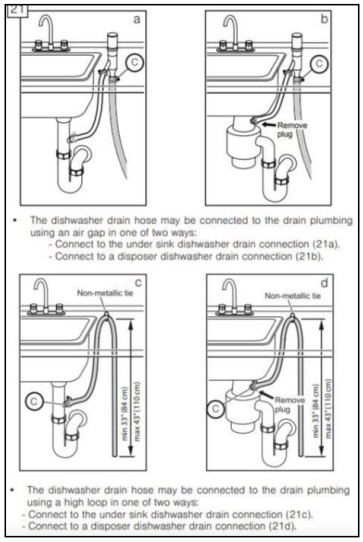
• The dishwasher drainage line is examined to ensure that wastewater drains properly during the dishwasher drain cycle and to prevent siphoning, and for the potential for backflow of waste water/material from the sink or the garbage disposal into the dishwasher. Without a prevention device, dirty water from the sink can collect into the drain line and back up into the dishwasher, contaminating the dishware. There are two primary tools that are commonly used and should be evaluated: a high loop drain line and an air-gap fixture, both designed to prevent the backflow and contamination of waste water/materials.

• The dishwasher has an air gap device installed in the drain line. The air gap stops any negative pressure from causing back siphoning into the dishwasher by introducing air into the system. The air gap device may reside on top of the sink or below the sink near the "P" trap.

Dishwasher Air Gap



Dishwasher Lines

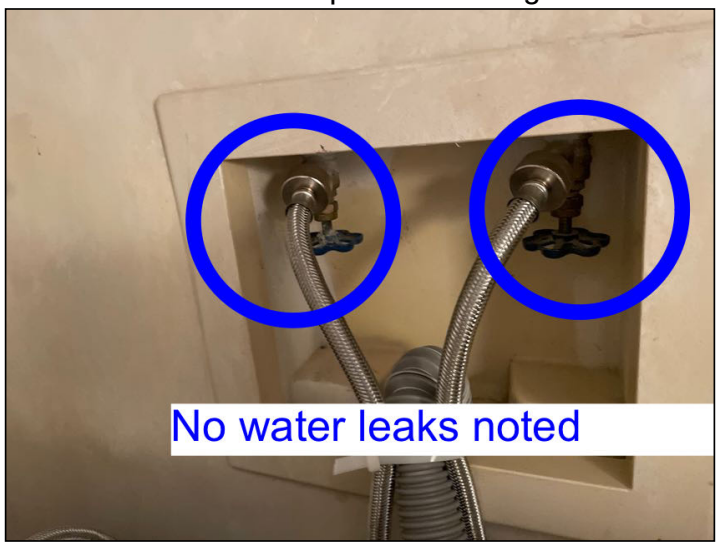


9. Washer Hookups

Observations:

A • The examination of washer hookups looks for water leaks in/around the the connection nodes/hoses and on the floor area at the base of the washer immediately below the hookups, likely caused by a faulty or broken plumbing connection.

• A visual examination of the washer hookups show no signs of water leaks.



Washer Hookups

10. Sinks/Basins & Faucets

Observations:

A • The examination of sinks, basins and faucets looks for water leaks in/around the sink/basin and faucet(s) and on the floor area at the base of the sink/basin, likely caused by a faulty or broken plumbing connection.

• A visual examination of the Sinks, Basins & Faucets show no signs of water leaks.

Bathroom Sink

Infrared Meter Scan of Bathroom Sink Area

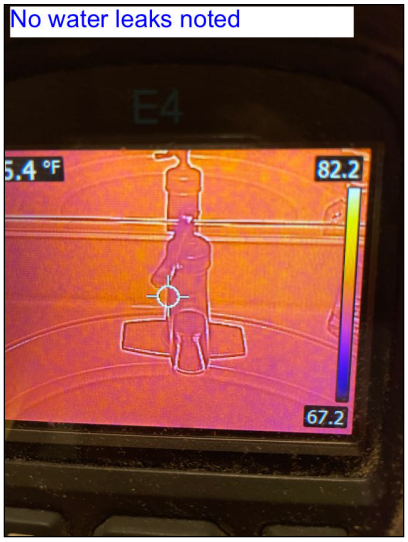
Bathroom Sink

Infrared Meter Scan of Bathroom Sink Area

Bathroom Sink

Infrared Meter Scan of Bathroom Sink Area

Bathroom Sink



Infrared Meter Scan of Bathroom Sink Area

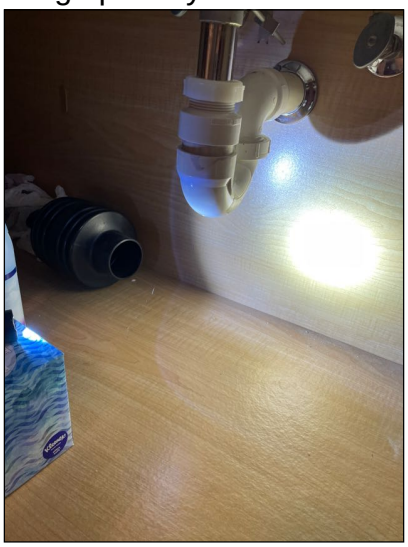
11. Traps

Observations:

A • The examination of sink/basin traps is to look for water leaks in the plumbing lines, or leakage on the floor area immediately under the trap, likely caused by a faulty or broken plumbing connection.

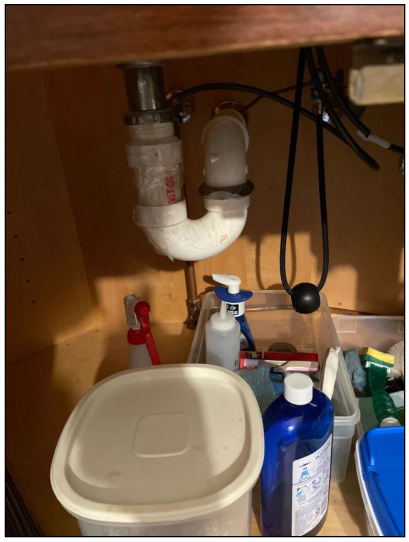
• A visual examination of the plumbing Traps shows no water leaks on the pipes or the cabinet area immediately beneath the trap.

• Proper use of observable "P" traps noted. Sewer gases can rise through the drain pipes in your home, but the u-shaped bend in the p-trap collects water. This water blocks the gases from rising up into your sink.

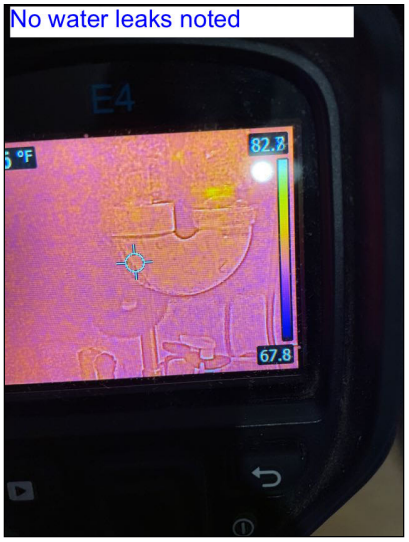


Bathroom Trap

Infrared Meter Scan of Bathroom Trap

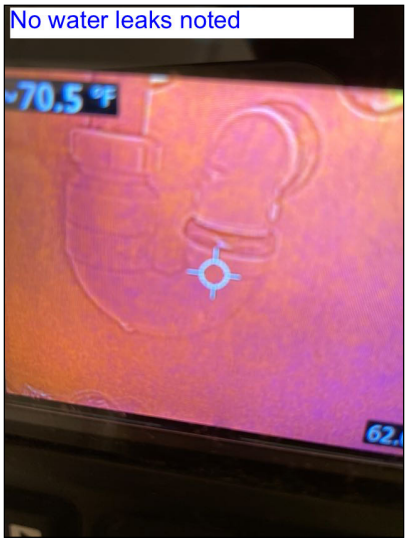


Bathroom Trap

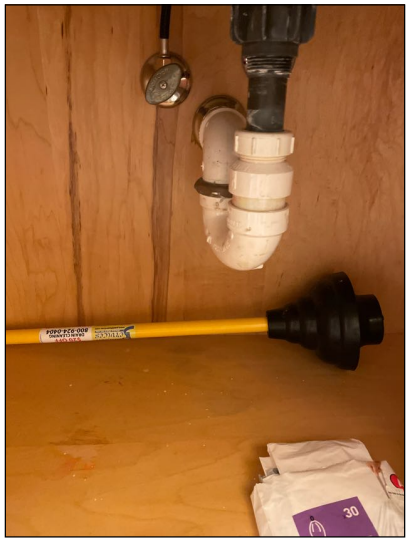


Infrared Meter Scan of Bathroom Trap

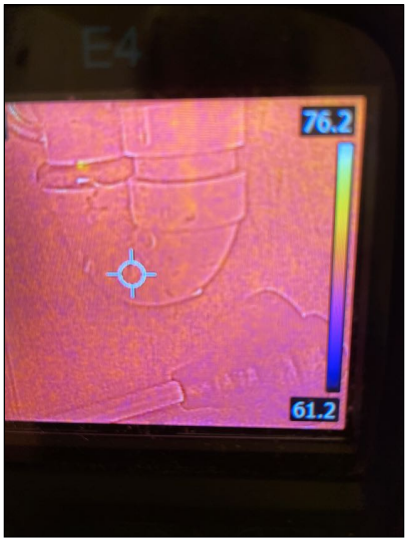
Bathroom Trap



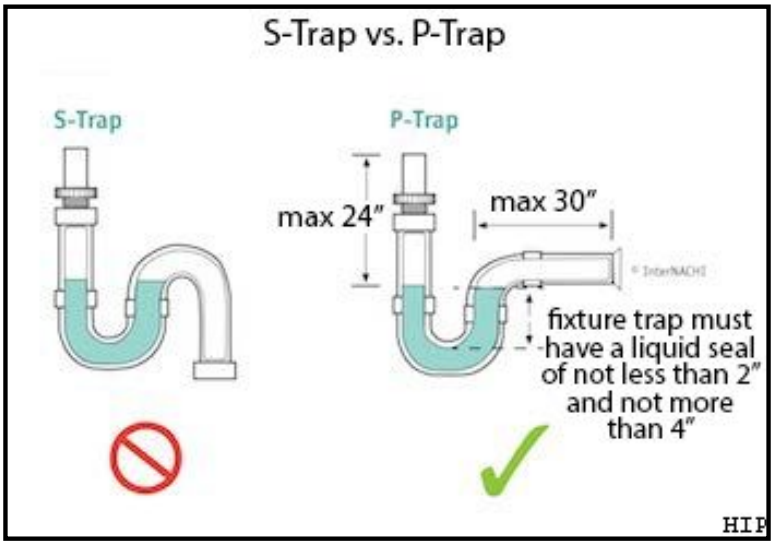
Infrared Meter Scan of Bathroom Trap



Bathroom Trap



Infrared Meter Scan of Bathroom Trap



12. Toilets

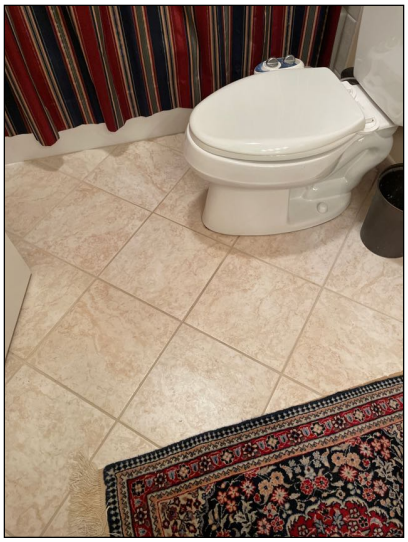
A

Observations:

• The examination of the toilets is to examine the adequacy of flushing and to look for leaks around the base of the toilet, likely caused by a faulty or collapsed wax ring. An attempt is made to move the toilet to determine if it is secure to the floor.

• Toilet is secure to the floor. External toilet plumbing leaks are not present from visual examination. Area at base of toilet floor area shows no signs of water leaks.

• Toilet is noted as functional and in satisfactory condition.



Bathroom Toilet

Infrared Meter Scan of Bathroom Toilet Basin Area

Bathroom Toilet

Infrared Meter Scan of Bathroom Toilet Basin Area

Bathroom Toilet

Infrared Meter Scan of Bathroom Toilet Basin Area

Bathroom Toilet

Infrared Meter Scan of Bathroom Toilet Basin Area

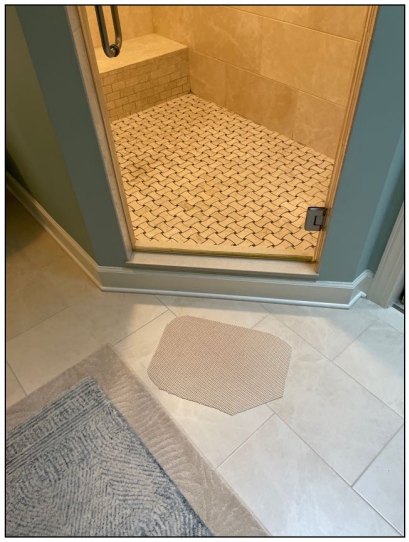
13. Showers

A

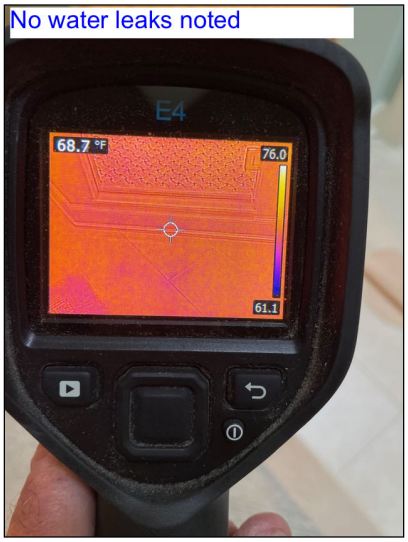
Observations:

• The examination of the showers is to look for leaks in/around the plumbing fixtures and on the floor area at the base of the shower, likely caused by a faulty or broken plumbing connection or by missing shower tile grout. Also examined is excess water spillage from shower use that could cause floor damage.

• A visual examination of the shower(s) external water supply equipment shows no plumbing leaks. Area at base of shower floor area shows no signs of water collection.



Bathroom Shower Basin Area



Infrared Meter Scan of Bathroom Shower Basin Area

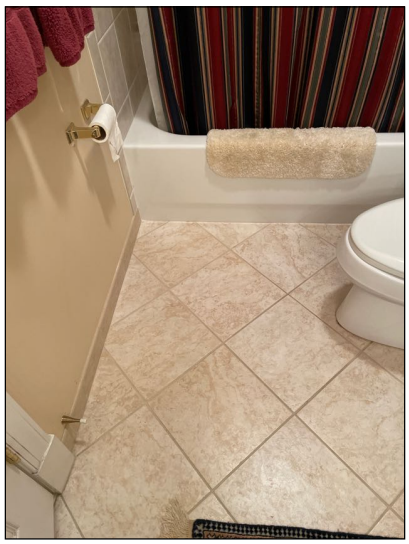
14. Tubs

A

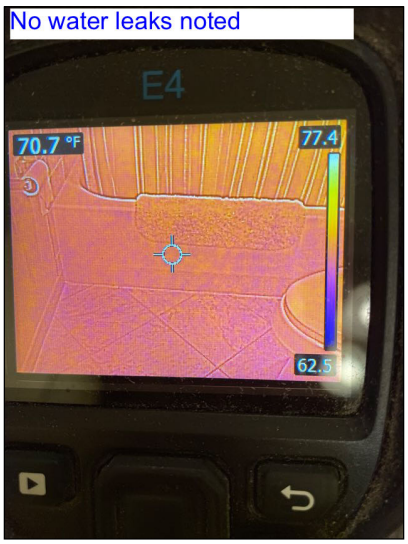
Observations:

• The examination of the tub(s) is to look for leaks in/around plumbing fixtures perhaps spilling on the floor area at the base of the tubs, likely caused by a faulty or broken plumbing connection. Also examined is excess water spillage from tub use that could cause floor damage.

• A visual examination of the tub(s) external water equipment shows no plumbing leaks. Area at base of tub floor area shows no signs of water collection.

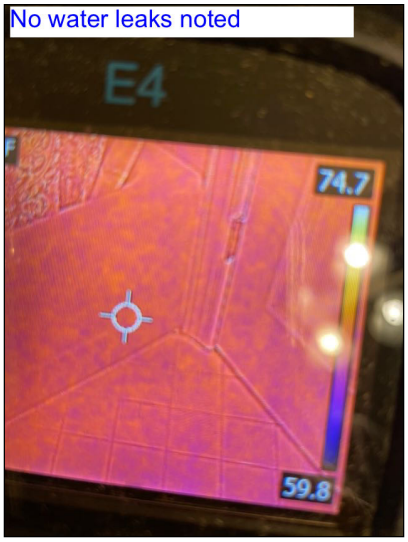


Bathroom Tub Floor Area



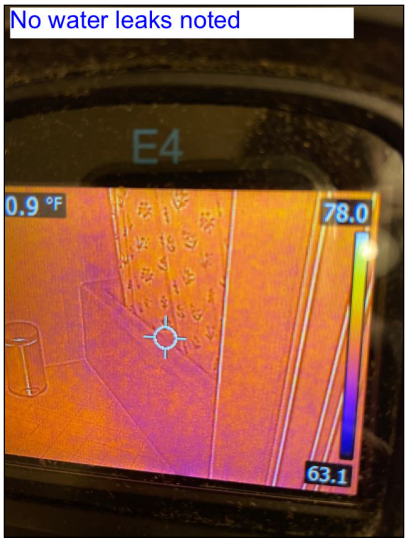
Infrared Meter Scan of Bathroom Tub Floor Area

Bathroom Tub Floor Area

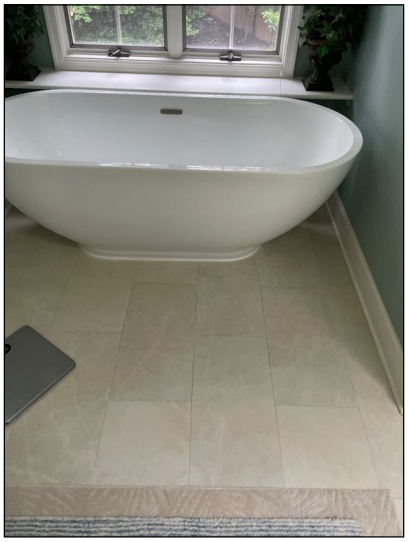


Infrared Meter Scan of Representative Bathroom Tub Floor Area

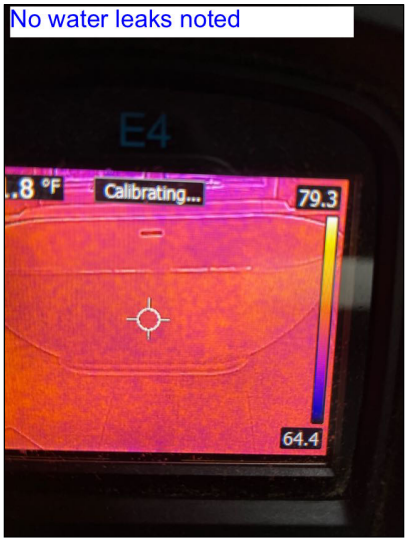
Bathroom Tub Floor Area



Infrared Meter Scan of Bathroom Tub Floor Area



Bathroom Tub Floor Area



Infrared Meter Scan of Bathroom Tub Floor Area

Water Heater

There are two basic types of water heaters: storage water heaters and tankless water heaters. A storage water heater is a domestic water heating appliance that uses a hot water storage tank to maximize water heating capacity and provide delivery of hot water. Conventional storage water heaters use a variety of fuels, including natural gas, propane, fuel oil and electricity. Capacities generally range from 20 gallons to 80 gallons. The typical household of 1 -2 people will require a capacity of 30 - 40 gallons, 2 - 3 people 40 - 50 gallons, 3 - 4 people 50 - 60 gallons, and 5+ people 60 - 80 gallons.

Tankless water heaters are water heaters that instantly heat water as it flows through the device, and do not retain any water internally except for what is in the heat exchanger coil. The main advantages of tankless water heaters are a plentiful, practically limitless continuous flow of hot water (as compared to a limited flow of continuously heated hot water from conventional tank water heaters), and potential energy savings under some conditions due to the use of energy only when in use, and the elimination of standby energy losses since there is no hot water tank. The main disadvantage of these systems are their high initial costs (equipment and installation).

The home inspector will perform a visual, sensory and operational check of the home's water heater(s), noting the manufacturer, age or expected lifespan of the unit. As one of the busiest plumbing system components, the satisfactory operation of the water heater is essential. A natural to inspect -- does the unit have hot water, what is the fuel type and is the fuel type turned-on or available? Other checks involve looking for damage to the unit whether corrosion or an outright water leak. If the fuel is gas, if and where is the shut off valve. Inspections vary between a storage water heater and a tankless water heater with the storage water heater having a more extensive inspection list. What is the condition of the draft hood for a mid-efficiency gas unit? And for any fuel type, is there a TPR value and is it configured correctly. And is there a WATTS 210 gas shut off value? Further, is there an expansion tank to absorb the increased pressure when water is heating and expanding? When using his/her sensory perceptions, the Inspector will be looking for something as simple as unusual noises which can indicate harmful sludge buildup or internal corrosion. An unpleasant smell, similar to rotten eggs, may indicate the presence of desulfovibrio bacteria which thrive in hot water in the presence of magnesium. Here the inspector may recommend chlorinating the tank and/or replacing the anode with an aluminum rod, a device used to protect the steel of the tank by giving up ions. It is recommended that a few gallons of water be drained from the tank annually to get rid of or at least reduce the level of sludge in the tank. When the unit has sludge, it is forced to work harder and cost more in utility bills.

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1. Location & Area Served

A

Location of Unit: Basement

Area Served and Type: Entire Home

Water Heater

2. Type of Water Heater

A

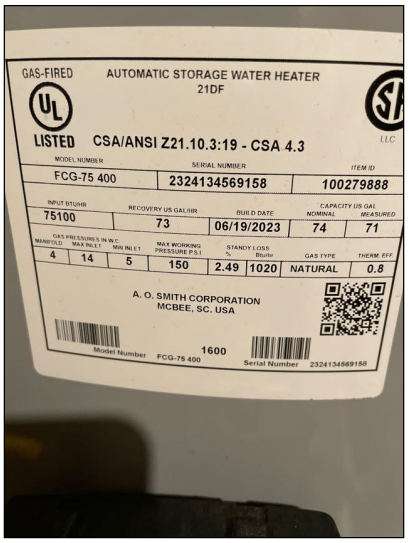
Manufacturer: AO Smith
Serial Number: 2324134569158
Model Number: FCG-75 400

Observations:

Conventional storage water heaters remain the most popular type of water heating system for the home. The storage water heater offers a ready reservoir of hot water, releasing hot water from the top of the tank when you turn on the hot water tap. To replace that hot water, cold water enters the bottom of the tank through the dip tube where it is heated, ensuring that the tank is always full.

Unit is a Mid-Efficiency Water Heater

Water Heater Manufacturer



Water Heater Specifications

3. Capacity & Age

Capacity: 75 Gallons

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Observations:
• RECENTLY REPLACED
Manufactured June 19, 2023. Water Heater is 1 year old.
• Message: Gas Water Heater life span is generally 8 - 12 years.

4. System Operation

Observations:

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• An exterior only evaluation of the water heater was conducted. The access panel and interior burner cover (located below the control unit) were not removed for interior inspection because the unit is a Flammable Vapor Ignition Resistance (FVIR) model, introduced July 2003, where the interior burner plate is screwed in place and has a gasket to seal it airtight.
• Unit is functional; output line hot/warm to touch; able to draw hot water from household faucets.
• No evidence of past or present leakage from water heater. No internal noises noted that would indicate sediment build-up which could cause the unit to overheat and eventually fail. No indication of murky or foul-smelling water, signs of a failing water heater.
• Want To Extend The Life Of Your Water Heater? Most tank hot water tanks have one or two magnesium or aluminum anode rods inside to protect exposed steel by giving up ions. In general, a tank with a 6-year guarantee has one rod; a tank with a 10- 12-year guarantee has two rods. Replacing the rods every two to four years will greatly extend the life of the tank. Refer to YouTube for instructions.

Magnesium or Aluminum Anode Rods.

5. Fuel, Delivery Line & Shutoff

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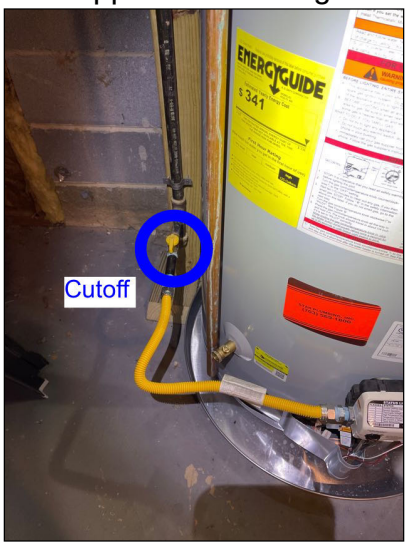
Type of Fuel: Gas Hot Water Heater
Propane Hot Water Heater; Fuel source is buried tank
Gas Water Heater Diagram Plumbing/General/gas-water-heater.jpg

Observations:
• Fuel source line originates with the Utility Company via the gas meter located at the exterior of the residence. Reference Heating -- Primary Unit/Fuel.
• Fuel delivery line is noted as functional and in satisfactory condition. Shutoff located on fuel delivery line near the water heater.
• Fuel line:
• Black Iron; threaded, black in color; similar to galvanized steel but without zinc corrosion protection. Black iron pipe is the most preferred pipe for natural gas. The pipe is less expensive, already in use in most homes, and is seamless, making it less prone to gas leaks.
• 1/2 " Copper Gas Tubing Coated With Yellow Polyethylene



Gas Water Heater Delivery Line; Gas Cutoff Noted


Gas Water Heater Gas Cutoff Noted

6. Venting

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Type of Venting:
• Standard Atmospheric Venting -- Standard atmospheric water heaters are the most common type of residential gas water heaters. Working on the principle of hot air rising, atmospheric gas water heaters vent their exhaust through a vertical or upward sloping metal duct vent to exit the home.

Observations:
• The visible portions of the vent pipes appear functional.

Hot Water Heater Venting Tube

7. Distribution Lines

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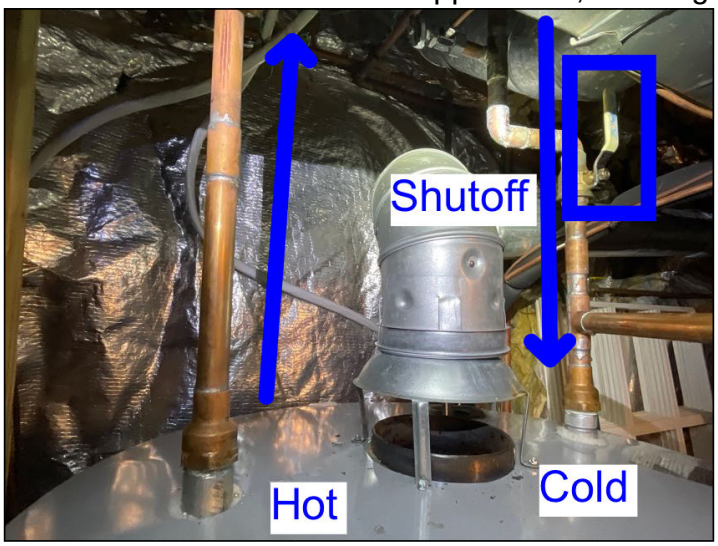
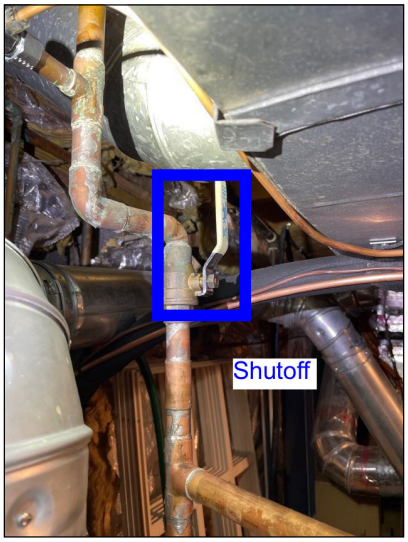
Observations:

- Observable distribution lines appear functional and in sustainable condition.
- Type of water distribution lines:
- Copper -- one of the most commonly used materials for service pipes; relatively resistant to corrosion. Scratch for copper color; not magnetic.



Water Distribution Lines & Shutoff Valve



Water Distribution Shutoff Valve

8. Temperature Pressure Relief Valve

Temperature Pressure Relief Valve (TPRV/TPR) present.

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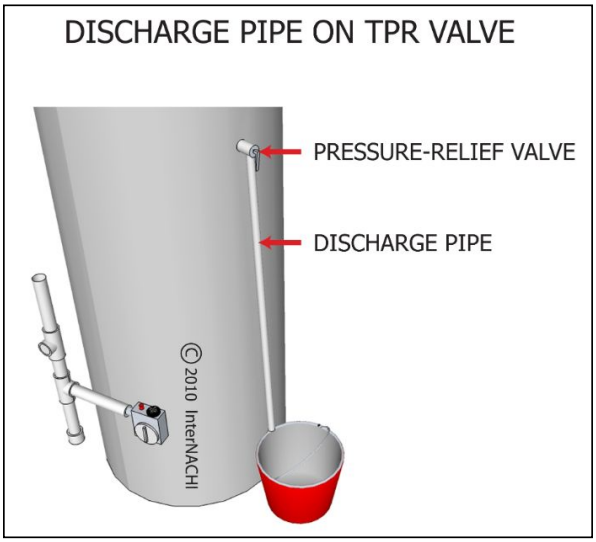
Observations:

• Temperature Pressure Release (TPR) valve and discharge pipe -- not tested but appears to be in satisfactory condition. There is no indication of the valve leaking, prior or current.

• MESSAGE: Temperature Pressure Relief Valve allows water or steam to escape from the water heater if the water temperature exceeds 210 degrees F or 150 psi. This prevents a water heater from exploding or turning into a missile.

We recommend testing your TPR valve every 6 months to make sure it is working properly. To test the TPR valve, simply lift it up and down several times and hot water should briefly flow out of the drainpipe.

Temperature Pressure Relief Valve



9. Options

• Galvanized steel or aluminum water heater pan present.

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Hot Water Heater Catch Pan

Moisture Intrusion

Mositure intrusion, the number one cause of damage to a residence, refers to water getting into a residence, in unsafe levels, and is one of the most significant factors affecting the durability of a building envelope. Moisture intrusion can cause damage to building materials, or the growth of mold. Moisture intrusion has the potential to cause discomfort or sickness if contacted or consumed by humans. The inspector will point out the presence of any observed mold-like substances found in a home. It should be noted that should apparent mold be noted, it will not be confirmed by the inspector and should be confirmed only with the benefit of sampling, logically performed by a certified mole inspector.

For purposes of this inspection report, moisture intrusion refers to excessive levels of external water entering a home at outside foundation walls, and the roof structure. Many interior components are evaluated relative to the detection and impact of moisture intrustion from external sources. This includes evaluating sublevel walls abutting foundation areas and roof sheathing. Interior moisture originating not from the outside but from plumbing and piping issues and various human activities, is reported under Plumbing. The inspector will use his best judgment to determine where the moisture originates and report it as such.

The home inspector will examine the property at the roof and lowest level walls as structural elements for moisture intrusion. The Inspector will look for tell-tale signs of moisture intrusion from actual leaks, to stains on the lowest level walls and floors. Visual examination may be backed up by a Thermal Imaging Scanner when potential moisture is suspected. The Thermal Imaging Scanner does not see through walls. Rather, it works on the premise of numerous sensors determining the temperature of a specific point or area of a wall and comparing it to other points or areas to determine if there is a notable change in temperature which may indicate the presence of water on or behind a structurel. Further, a moisture meter can be used at the Inspector's discretion to further analyze potential moisture intrusion, trace water damage and determine the relative moisture content of a surface.

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1. Relative Humidity

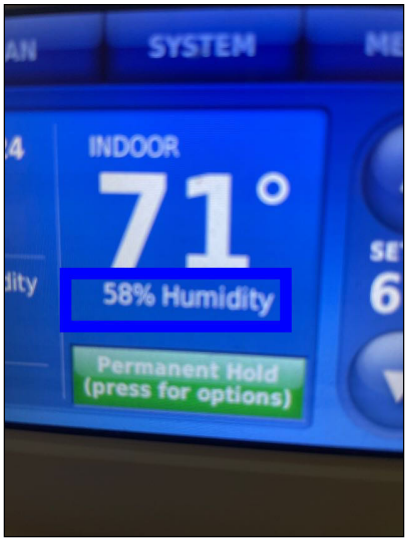
Observations:

• Relative Humidity is recorded as 58 percent. Test recorded off of 1st level Thermostat.

Note: It had been raining for two days.

Relative Humidity is the amount of water vapor present in air expressed as a percentage of the amount needed for saturation at the same temperature.

• According to the Environmental Protection Agency, the best indoor relative humidity falls between 30% and 50%, and it should never exceed 60%. Other studies suggest 40% to 60% is a better range. Regardless, 60% seems to be the agreed-upon threshold for indoor humidity.



Relative Humidity

2. Internal Foundation Walls

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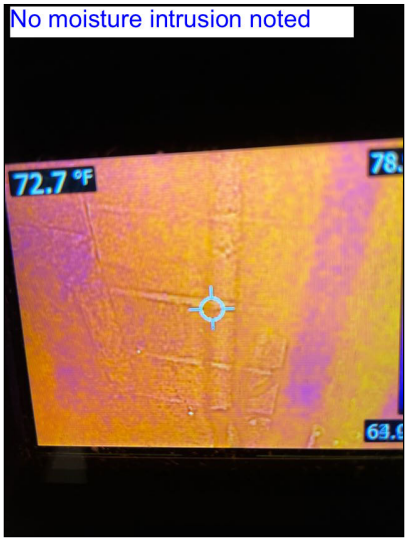
Observations:

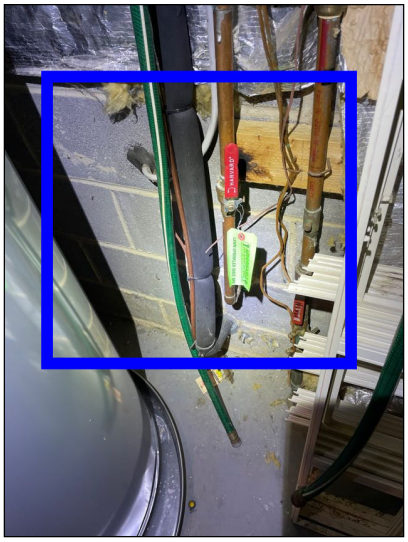
• No moisture penetration from external sources noted on observable interior foundation walls. No dampness noted. No mold- or mildew-like substances noted by sight or smell which can occur with moisture intrusion.

• The majority of the interior foundation was covered by either finished material and/or insulation blankets. Absent direct views of the foundation, moisture intrusion evaluation is observed through the basement walls adjoining the foundation, presented in the next subsection of this report.

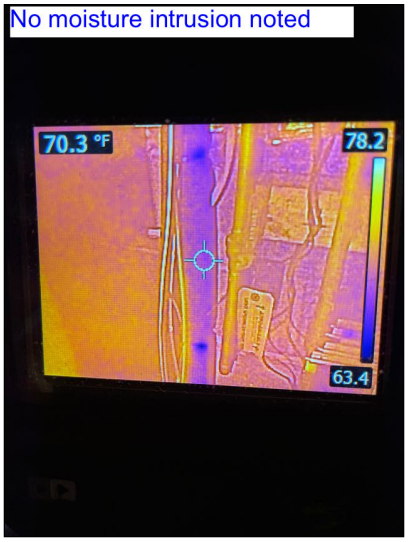
Representative Area of internal Foundation Walls



Infrared Meter Scan of Representative Area of Internal Foundation Walls



Representative Area of internal Foundation Walls



Infrared Meter Scan of Representative Area of Internal Foundation Walls

3. Finished Basement Perimeter Walls

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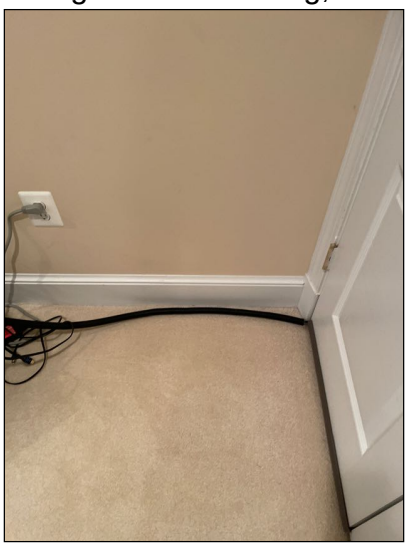
Observations:

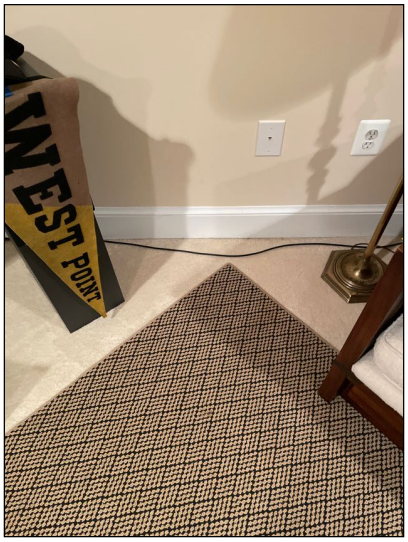
• No moisture penetration noted in representative basement areas adjoining the foundation. Basement walls are finished and no moisture penetration is noted on the walls or at logical collection points at the base of the walls to include ceiling area and baseboards. No wall deterioration is noted such as bowed, buckling or leaning structures. No wall discoloration or staining noted. Wall paint peeling or flaking is not noted. No mold-like substances noted. Floors are free of any water collection.

• No signs of moisture penetration from observations of flooring over the slab such as buckling or shrinking in wood flooring, discoloration in tiles and grout or bubbles in vinyl sheets.



Representative Area of Basement Walls Adjacent to Foundation

Infrared Meter Scan of Representative Area of Basement Walls Adjacent to Foundation



Representative Area of Basement Walls Adjacent to Foundation

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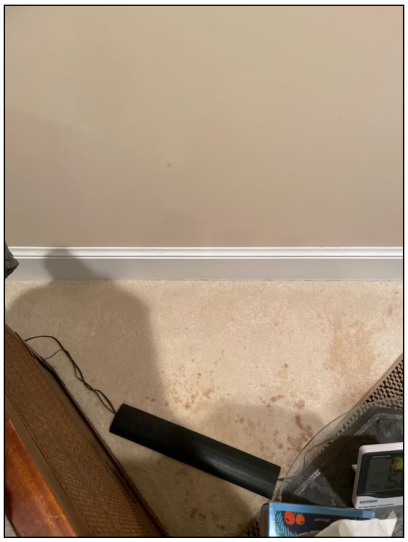
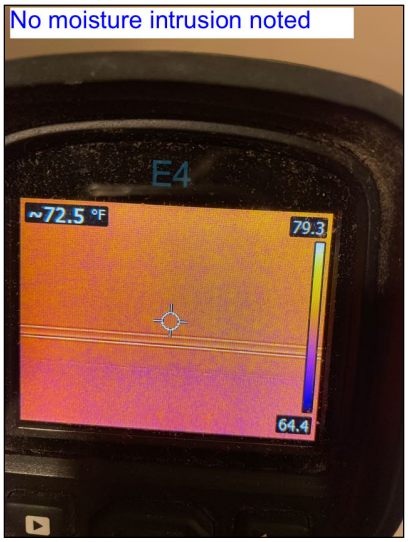


Representative Area of Basement Walls Adjacent to Foundation



Infrared Meter Scan of Representative Area of Basement Walls Adjacent to Foundation

Representative Area of Basement Walls Adjacent to Foundation

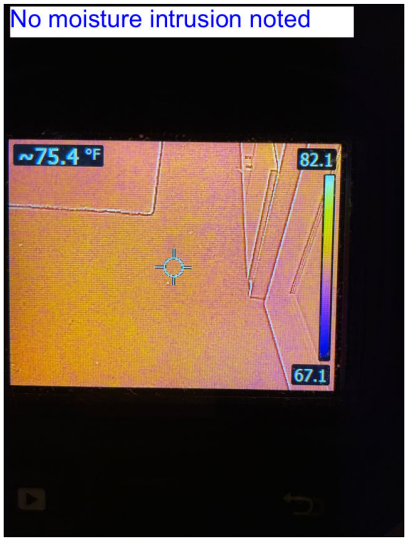
Infrared Meter Scan of Representative Area of Basement Walls Adjacent to Foundation

4. Slab

Observations:

A • No moisture penetration noted on any visible portion of slab.

Representative Area of Foundation Slab



Infrared Meter Scan of Representative Area of Foundation Slab

Representative Area of Foundation Slab

Infrared Meter Scan of Representative Area of Foundation Slab

5. Roof Sheathing

Observations:

A • No moisture penetration noted on observable roof sheathing (roof decking) or on other surfaces of accessible attic area caused by moisture penetrating through the sheathing. No peeling or tearing of sheathing noted. No crowning or cupping. No discoloration of sheathing noted.

• Attic Access:

• The entirety of the attic was not observable given limited walk access and noted risk of transit. Such limits full viewing of attic roof framing.

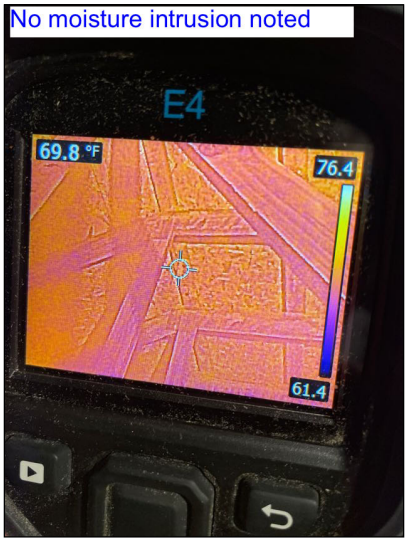
Representative Area of Roof Sheathing

Infrared Meter Scan of Representative Area of Roof Sheathing

Representative Area of Roof Sheathing

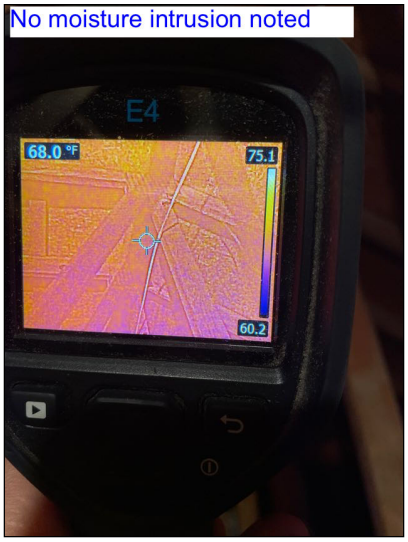
Infrared Meter Scan of Representative Area of Roof Sheathing

Representative Area of Roof Sheathing

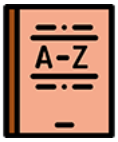


Infrared Meter Scan of Representative Area of Roof Sheathing

Representative Area of Roof Sheathing



Infrared Meter Scan of Representative Area of Roof Sheathing



Glossary

Term	Definition
Air Gap	Air gap (drainage): The unobstructed vertical distance through free atmosphere between the outlet of the waste pipe and the flood-level rim of the receptacle into which the waste pipe is discharged.
DWV	In modern plumbing, a drain-waste-vent (or DWV) is part of a system that removes sewage and greywater from a building and regulates air pressure in the waste-system pipes, facilitating flow. Waste is produced at fixtures such as toilets, sinks and showers, and exits the fixtures through a trap, a dipped section of pipe that always contains water. All fixtures must contain traps to prevent sewer gases from leaking into the house. Through traps, all fixtures are connected to waste lines, which in turn take the waste to a soil stack, or soil vent pipe. At the building drain system's lowest point, the drain-waste vent is attached, and rises (usually inside a wall) to and out of the roof. Waste is removed from the building through the building drain and taken to a sewage line, which leads to a septic system or a public sewer.
Drip Edge	Drip edge is a metal flashing applied to the edges of a roof deck before the roofing material is applied. The metal may be galvanized steel, aluminum (painted or not), copper and possibly others.
GFCI	A special device that is intended for the protection of personnel by de-energizing a circuit, capable of opening the circuit when even a small amount of current is flowing through the grounding system.
PVC	Polyvinyl chloride, which is used in the manufacture of white plastic pipe typically used for water supply lines.
TPR Valve	The thermostat in a water heater shuts off the heating source when the set temperature is reached. If the thermostat fails, the water heater could have a continuous rise in temperature and pressure (from expansion of the water). The temperature and pressure could continue to rise until the pressure exceeds the pressure capacity of the tank (300 psi). If this should happen, the super-heated water would boil and expand with explosive force, and the tank would burst. The super-heated water turns to steam and turns the water heater into an unguided missile. To prevent these catastrophic failures, water heaters are required to be protected for both excess temperature and pressure. Usually, the means of protection is a combination temperature- and pressure-relief valve (variously abbreviated as T&P, TPV, TPR, etc.). Most of these devices are set to operate at a water temperature above 200° F and/or a pressure above 150 psi. Do not attempt to test the TPR valve yourself! Most water heating systems should be serviced once a year as a part of an annual preventive maintenance inspection by a professional heating and cooling contractor. From Plumbing: Water Heater TPR Valves

Valley Flashing	Sheet metal or other material used to line a valley in a roof to direct rainwater down into the gutter system.