

INSPECTION REPORT

Report Number
RHI 4561

Property Information



Some City, Minnesota 55000

Client Information

Client Name **Informed Buyer**

Inspected on

Inspection Date **Monday, January 11, 2021**

Inspection Time 1:00 PM

Inspection Conducted By



Reassurance Home Inspection LLC
3929 Arthur St. NE
Columbia Heights, MN
55421

Phone: (612) 701-9672
Email: rhimn@comcast.net
Web: www.rhimn.com

Inspected by:
Dave Taurinskas

Inspector's Signature:



Signature Date
January 24, 2021

PROPERTY

The property of Some City, Minnesota was inspected on Monday, January 11, 2021 at approximately 1:00 PM.

STYLE: The style classification of this building is: Single Family

AGE: The approximate age of this building in years is: 20 Years [Year Built Approx 2001]

ABOVE GRADE: For the subject address, the number of stories above grade is: 2

AMBIENT CONDITIONS: The ambient weather conditions at time of inspection were:

Sunny; Variably Cloudy; Calm/Light Wind; Temperature: 20 to 30 °F

OBSERVER ORIENTATION**PARTIES INVOLVED**

This Report is provided as information to the contracted party(s): Informed Buyer In attendance at the inspection were:

Client: Informed Buyer

Purchaser's Agent: Best Realtor

METHOD AND EXTENT OF INSPECTION

A visual inspection of readily accessible systems and components was conducted with the objective of reporting the overall condition of the home and identifying those systems and components that are significantly deficient or are near the end of their service life. The inspection as undertaken by Reassurance Home Inspection LLC is performed in accordance with guidelines provided by the current home inspection standards of practice that can be found on the company website (www.rhimn.com).

Deficiencies as observed in the course of inspection are noted in the attached Deficiencies Report. In interpreting results from this home inspection, this report should be taken in context of the full report.

The following systems were inspected, with the full report describing the characteristics of these systems:

- Roof System
- Exterior Elements
- Structural System
- Interior Elements
- Insulation and Ventilation Systems
- Heating and Cooling Systems
- Plumbing System
- Electrical System

If the Client is not present at the time of Inspection and for any reason the client is unable to sign at the time of inspection, or does not sign this agreement, this agreement will become part of the inspection report, and acceptance of the inspection report shall constitute acceptance of the terms herein.

SYSTEM ASSESSMENT SUMMARIES

The following is an assessment of the overall condition of the systems inspected as part of the current inspection.

Roof

Overall Condition: Generally Acceptable Where Viewable; Some Repairs, Maintenance, or Adjustments Required, Monitoring and/or Upgrades Recommended; In assessing the various aspects of the exterior elements of this home,

conditions are noted where repairs, maintenance, or upgrades are recommended or required so the noted item may perform as intended. Assuming the noted conditions are repaired or upgraded, the overall condition would be acceptable, with periodic monitoring and preventative maintenance activities performed.

Deficiencies Noted: In assessing the various aspects of the roofing and/or gutter systems, conditions are noted that; are more concerning in nature, could be done more effectively, or smarter, and consequently may affect the ability of the roof and gutter system to meet all aspects of intended use and functionality.

Exterior

Overall Condition: Generally Acceptable; Some Repairs, Maintenance, or Adjustments Required, Monitoring and/or Upgrades Recommended, In assessing the various aspects of the exterior elements of this home, conditions are noted where repairs, maintenance, or upgrades are recommended or required so the noted item may perform as intended. Assuming the noted conditions are repaired or upgraded, the overall condition would be acceptable, with periodic monitoring and preventative maintenance activities performed.

Deficiencies Noted. In assessing the various aspects of the exterior elements of this home, conditions are noted that are of a more concerning nature, such as safety, cost of repair, potential for additional damage, affecting the ability of the exterior components to meet all aspects of intended use and functionality. Correction of these deficiencies should be considered as a priority.

Safety and/or Health Concerns Noted. In assessing the various aspects of the exterior features of this home, conditions are noted that affect the health and safety of the home's occupants. Correction of these deficiencies should be considered a priority.

Structure

Overall Condition: Acceptable; Repairs Required. In assessing the various aspects of the structural elements of this home, conditions are noted where repairs are required. Assuming the noted conditions are repaired, the overall condition would be acceptable, with periodic monitoring and preventative maintenance activities performed.

Deficiencies Noted: In assessing the various aspects of the structural elements of this home, conditions are noted that are of a major nature, affecting the ability of the structural components to meet all aspects of intended use and functionality. Correction of these deficiencies should be considered as a priority.

Interior

Overall Condition: Acceptable; Repairs Required. In assessing the various aspects of the interior elements of this home, conditions are noted where repairs are required. Assuming the noted conditions are repaired, the overall condition would be acceptable, with periodic monitoring and preventative maintenance activities performed.

Deficiencies Noted: In assessing the various aspects of the interior elements of this home, conditions are noted that are of a more concerning nature, affecting the ability of the interior components to meet all aspects of intended use and functionality. Correction of these deficiencies should be considered as a priority.

Insulation and Ventilation

Overall Condition: Acceptable; Repairs Required and/or Upgrades Recommended. In assessing the various aspects of the insulation and ventilation elements of this home, conditions are noted where repairs or corrections are required. Assuming the noted conditions are repaired/corrected, the overall condition would be acceptable, with periodic monitoring and preventative maintenance activities performed.

Deficiencies Noted. In assessing the various aspects of the insulation and ventilation elements of this home, conditions that are more concerning are noted, that appear to be affecting the ability of the insulation and ventilation components to meet all aspects of intended use and functionality. Correction of these deficiencies should be considered as a priority.

Heating and Cooling

Overall Condition: Acceptable; Monitoring, Repairs Required, and/or Upgrades Recommended. In assessing the various aspects of the heating/cooling systems of this home, conditions are noted where repairs are required. Assuming the noted conditions are repaired, the overall condition would be acceptable, with periodic monitoring and preventative maintenance

activities performed.

Deficiencies or Concerns Noted. In assessing the various aspects of the heating/cooling systems of this home, conditions that are questionable or more concerning are noted, that appear to affect the ability of the heating/cooling components to meet all aspects of intended use and functionality. Correction of these deficiencies should be considered as a priority.

Plumbing

Overall Condition: Acceptable; Repairs Required, Monitoring or Upgrades Recommended. In assessing the various aspects of the plumbing system of this home, conditions are noted where repairs are required. Assuming the noted conditions are repaired, the overall condition would be acceptable, with periodic monitoring and preventative maintenance activities performed.

Deficiencies Noted. In assessing the various aspects of the plumbing system of this home, conditions are noted that are more concerning and appear to affect the ability of the plumbing components to meet all aspects of intended use and functionality. Correction of these deficiencies should be considered as a priority.

Safety and/or Health Concerns Noted. In assessing the various aspects of the plumbing features of this home, conditions are noted that may affect the health and safety of the home's occupants. Correction of these deficiencies should be considered a priority.

Electrical

Overall Condition: Acceptable; Repairs Required. In assessing the various aspects of the electrical system of this home, conditions are noted where repairs are required. Assuming the noted conditions are repaired, the overall condition would be acceptable, with periodic monitoring and preventative maintenance activities performed.

Deficiencies Noted: In assessing the various aspects of the electrical system of this home, conditions are noted that are of a major nature, affecting the ability of the electrical system components to meet all aspects of intended use and functionality. Correction of these deficiencies should be considered as a priority.

Safety Concerns Noted: In assessing the various aspects of the electrical system of this home, conditions are noted that affect the health and safety of the home's occupants. Correction of these deficiencies should be considered a priority.

On behalf of Reassurance Home Inspection LLC



Inspector

FUNCTION

The primary purpose of the roofing system is to protect the interior of the home from the elements, including sun, wind, rain, and snow. The design and selection of materials including the roof structural elements, sheathing, roof coverings, flashings, ventilation, and protruding components affect the performance and durability of the system as a whole. As the roof system is intended to provide a weather tight covering over the home, it is critical that this system be periodically checked; a thorough review twice a year is recommended, and any deficiencies noted should be immediately corrected.

INSPECTION PROCESS

As documented by this Report, the inspection of the roofing system included the examination of: the roof covering(s); the roof drainage system; the flashings; and penetrations through the roof surface including skylights, chimneys, roof vents, etc. Reported below are the description of the roof system and the methods used to inspect this system. Items excluded from this examination, if present, include: antennae; interiors of flues or chimneys which are not readily accessible; and installed accessories such as solar panels, lightning arrestors, etc.

As a primary function of the roof system is to protect against water infiltration, it should be noted that there may be leaks in the roof system that may only become apparent under specific weather conditions that were not encountered at the time of the inspection. Also note that although the inspector may provide a statement estimating the apparent age of roof cover, this is expressed as an opinion only. The actual age may vary considerably from this stated estimate. Factors such as manufactured shingle quality, installation methods, weather, roof system ventilation, orientation of roof surface, etc. affect the life expectancy of the roof cover, and as such accurate statements on age can often not be provided.

SYSTEM CHARACTERISTIC:

LOCATION	ROOF COVER	SLOPE	AGE	INSPECTION METHOD
Main	Asphalt/Fiberglass Shingle	Medium/High	Unable to Verify	Unable to observe or fully evaluate; see Restrictions; From Ground with Digital Zoom Camera and/or Binoculars, with

COMPONENT CHARACTERISTIC:

ROOF VENTS

One or More Observed

PLUMBING STACK

Plumbing Stack(s)
Observed

CHIMNEYS

None Observed

ELECTRICAL MAST

None Observed

SKYLIGHTS

None Observed

SOFFITS

Aluminum

FASCIA

ROOF COVERINGS: Roof coverings provide the exterior protection of the structure against water penetration. Attention to deterioration over time is the most common maintenance activity, and damage to or loss of covering should be immediately repaired to prevent water entry.

ROOF FLASHINGS: Flashings are designed to prevent water entry through the roof structure at points where different surfaces meet, such as at chimneys, in areas where the roof meets wall structures, and in areas where there are changes in direction of the roof surfaces. Attention to caulking needs due to deterioration over time is the most common maintenance requirement.

ROOF VENTS: Roof vents provide the means for ventilating the roof interior structure and attic spaces. Attention to caulking needs due to deterioration is the most common maintenance requirement.

CHIMNEYS: Chimneys provide the means for exhausting fumes from the fuel-burning components of the home to the exterior of the home and above the level of the roof line. Masonry chimneys, which are exposed to weather conditions, should be monitored for change over time. Flashings at areas where the chimney meets the roof structure should also be closely monitored to ensure they remain sealed over time.

Aluminum

GUTTERS

Aluminum

DOWNSPOUTS

Aluminum

PROTRUSIONS: Penetrations through the roof surfaces may include items such as roof vents, chimneys, plumbing stacks, electric masts, and skylights. Attention to mechanical damage, deterioration, and caulking needs are the most common maintenance requirements.

GUTTERS & DOWNSPOUTS: The purpose of gutters and downspouts, when installed, is to provide the means for capturing water drainage at the edges of roof surfaces and controlling the means of discharge, preferably away from the foundation walls. Attention to removing obstructing debris, and attending to mechanical damage, detachment, deterioration, and leakage are the most common maintenance activities.

RESTRICTIONS:

At the time of inspection, the following restrictions applied to the examination of this system:

Visual Restriction: Evaluated From Ground and/or Roof Edge: Roof surface viewed with zoom digital camera or binoculars or at roof edge when safely accessible or other area where closer evaluation is possible. Photographs reviewed in detail on computer after inspection.

Visual Restriction: Surface(s) not visible or fully evaluated due to access and viewing constraints

Visual and Access Restriction: Snow/Ice/Frost/Debris cover surface or Frozen/Slippery/Unsafe ground surface prevents safe access and/or viewing for complete evaluation

ROOF SYSTEM ASSESSMENT SUMMARY:

Overall Condition: Generally Acceptable Where Viewable; Some Repairs, Maintenance, or Adjustments Required, Monitoring and/or Upgrades Recommended; In assessing the various aspects of the exterior elements of this home, conditions are noted where repairs, maintenance, or upgrades are recommended or required so the noted item may perform as intended. Assuming the noted conditions are repaired or upgraded, the overall condition would be acceptable, with periodic monitoring and preventative maintenance activities performed.

Deficiencies Noted: In assessing the various aspects of the roofing and/or gutter systems, conditions are noted that; are more concerning in nature, could be done more effectively, or smarter, and consequently may affect the ability of the roof and gutter system to meet all aspects of intended use and functionality.

DEFICIENCY SUMMARY:

LOCATION: All locations not terminating to grade a minimum of 8 ft. out from foundations, footings, walkways, driveways, support posts
SYSTEM: Roof

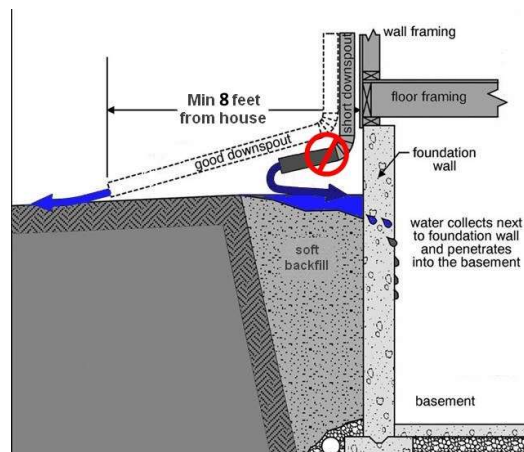
CONDITION: Downspout discharges too close to foundation, footing, support column, patio, driveway, retaining wall, stairway, or walkway

EXPLANATION: The discharge point for the downspouts is observed to be near a foundation, footing, support columns, patio, driveway, or walkway. Although a minimum of 8 ft is recommended, water discharge should be as far from the foundation, footings, patio, driveway, or walkway as practical or possible, or to a distance that positively allows water to drain away from the foundation or other structural elements, to prevent soil erosion, water saturation, damage, and deterioration to these items. Downspouts are recommended to dispense water outside of garden edging material, such as block, vinyl edging, or other material that would hold water or restrict it from draining away from the foundation. As a general rule, try to keep all downspout termination points at least 8 ft. away from anything that will cost you money to replace or repair. Homes built on lots that have flat grading may require much longer downspout extensions and more distant termination points to protect the structure.

NOTE: Townhome associations may not permit this. The extensions interfere with lawn and grounds maintenance.

IMPACT/CONSEQUENCES: Downspouts are a key component in the controlled drainage of run-off water away from the home's exterior elements. Downspout ends or extensions that are missing may result in water saturation of soils near the foundation, footings, patio, support columns, driveway, or walkway during rains, which in turn can result in basement moisture or leakage issues, settling, heaving, or other structural issues. It is recommended that the point of discharge be as far as necessary to get to an area that positively slopes away, but at least 8 feet away from any structural or support elements, and any traversable surfaces that could develop slippery surfaces during colder weather. Repair should include installing the correct length of downspout extension to assure that water freely flows and drains at a suitable distance from the previously mentioned items.

RECOMMENDED ACTION: Recommend Modifications | Consult Specialist





LOCATION: Downspouts - Various Locations

SYSTEM: Roof

CONDITION: Downspout tail piece performance is suspect (ribbed extension)

EXPLANATION: A section of the downspout is observed to be of a style, type, or configuration that does not appear to be suitable to assuring discharge water will be free flowing and discharge away from the foundation wall effectively. This may include flexible or "ribbed" sections, slope, or drain tile. Ribbed drains do not rinse clean causing a build-up of debris within the downspout causing blockage, which may attract rodents which may nest in the ribbed section of the downspout causing additional blockage.

IMPACT/CONSEQUENCES: Downspouts are a key component in the controlled drainage of run-off water away from the home's exterior elements. Poorly designed or configured downspout end terminations may result in water saturation of soils near the foundation during rains, which in turn can result in basement moisture or leakage issues. It is recommended that the point of discharge be at least 6' (2 m) from the foundation; repair should include replacing the downspout extension. The downspout assembly should assure that water freely flows and drains at a suitable distance from the foundation wall.

RECOMMENDED ACTION: Monitor closely.



LOCATION: Exterior Rear

SYSTEM: Roof

CONDITION: Gutter appears to have overflowed

EXPLANATION: The gutter displays indications that it has overflowed. This is usually an indication that debris has built up in the gutters, such that the free flow of water has been restricted to some degree causing the gutter to fill and overflow.

IMPACT/CONSEQUENCES: Gutters are a key component in the controlled drainage of run-off water away from the home's exterior elements. Water backing up in the gutter may add sufficient weight to the gutter to cause its detachment from the structure. Gutters that do not perform as intended may result in saturation of soils near the foundation, which in turn can result in basement moisture or leakage issues. Repair should include removing debris and assuring that water freely flows and drains from the gutter.

RECOMMENDED ACTION: Maintenance



LOCATION: Roof - Front (upper) **SYSTEM:** Roof

CONDITION: **Gutters not installed at all areas of roof edge**

EXPLANATION: Gutters have not been installed along all of the roof edges (upper and lower roof edges if applicable). Gutters provide a controlled means of collecting and discharging water away from the structure. Full depth 5 inch gutters are recommended.

Gutter guards/screens should be considered where there are trees nearby that may shed leaves that can clog the gutters.

Downspouts should terminate at least 8 ft away from foundations, footings, patios, walkways, and steps. Downspouts from upper roofs should be channeled into the lower gutters.

NOTE: Larger downspouts (3x4 inch), if currently not installed, are recommended as they provide better year round performance.

IMPACT/CONSEQUENCES: Gutters are a key component in the controlled drainage of run-off water away from the home's exterior elements. Roof runoff can deteriorate the siding, foundation, and foundation covering and insulation systems, saturate soils near and/or under driveways, walkways, steps, patios, and footings of decks and stairways causing settlement, cracking, and may eventually cause major deterioration, settlement, or heaving, and can result in basement moisture or leakage issues resulting in organic growth (mold, mildew, fungus, etc.).

RECOMMENDED ACTION: Recommend Installing | Consult Specialist



LOCATION: Downspouts - One or More Locations **SYSTEM:** Roof

CONDITION: Downspout below grade or hidden drainage provisions are concerning

EXPLANATION: Where a hidden or below grade drainage system is installed, there is usually no visual way to verify that drainage of water from the downspout into the below grade drain pipe is; not damaged from frost, restricted from debris accumulation, pest nesting, or settlement / heave crushing the drain tile, properly connected, properly sloped, and free flowing away from the foundation, walkway, patio, or driveway during all weather conditions. On older houses, these extensions may be cast iron, clay tile, or asbestos cement piping. On modern houses, the drain tiles below grade are often ABS or PVC plastic.

The disadvantages of below grade drainage systems include:

* It is difficult to see the early indications of nonperformance, since water can discharge below grade and collect, saturating the soil for some time before it is noticed at grade surface.

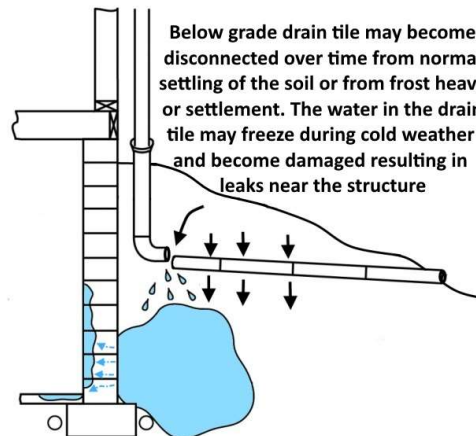
* When pipes do get clogged or collapse below grade, repair or replacement is more expensive, often requiring excavation.

IMPACT/CONSEQUENCES: The absence of proper visible drainage provisions will likely promote water saturation of soils at the foundation and footings, and may result in frost and moisture-related problems with the foundation, basement, walkway, patio, and driveway. In this area of the country, frost can go down a minimum of 4 ft., and has gone to 7 ft. causing the below ground drainage provisions to freeze resulting in damage to drain tiles, frozen and clogged drain tiles, which may cause below grade leaks near the structure. This condition should be closely monitored; where basement dampness or foundation cracks are noted, remedial action is recommended to improve and assure effective drainage will occur.

NOTE: There may not be a good alternative for this condition, so monitor closely for issues associated with moisture such as foundation settling, basement moisture issues, walkways settling or heaving, etc.

Consulting a gutter Specialist is advised to discuss options to address this condition.

RECOMMENDED ACTION: Review | Monitor | Repair | Consult Specialist



OBSERVATIONS & SUGGESTIONS:

Periodic roof examinations are suggested, with attention to monitoring for missing or damaged shingles, and deterioration over time. A visual examination of all roof surfaces should be done as part of your twice-yearly exterior maintenance activities.

Your roof areas should be checked after storms and major rainfall to ensure deterioration or damage has not occurred to roof cover, drainage components, flashing, and penetrations.

Your roof should be checked after winter storms and major snowfall to ensure upper roof vents are not snow covered. Blocked vents can lead to condensation problems in attic areas. If clearing vents cannot be done safely, contract a roof specialist for snow removal.

Periodic gutter system examinations are suggested to assure proper performance, with attention to monitoring for clogged, damaged, or deteriorated gutter system components. This includes gutters, gutter screens or covers, downspouts, and downspout extensions.

Pictures shown may only be a representative sample of all the related areas of concern.

PURPOSE

The primary purpose of the exterior elements of the home is to provide a weatherproof "envelope" to the house and its interior, with protection from the adverse affects of rain, wind, snow and sun, as well as to secure against entry by intruders.

INSPECTION PROCESS

As documented by this Report, the inspection of the exterior elements included examination of: the exterior wall coverings, flashings, and trims; exterior doors; attached decks, balconies, steps, porches, and their associated railings; the eaves, soffits, and fascias; the vegetation, grading, surface drainage, and retaining walls on the property where these are likely to adversely affect the building; and walkways, patios, and driveways leading to the home's entrances. Also examined are windows, window wells, and the interior of the garage. Garage door openers with permanently installed controls will be operated to verify auto-reverse and safety mechanism operation. Reported below are the characteristics of the exterior elements examined, as well as other appropriate information noted during the course of inspection. The mode of examination was primarily visual, although aids such as binoculars, ladders, and selective nondestructive probing may have been employed to ascertain the condition of specific components or elements.

Note that the exterior inspection does not normally include and report on: storm doors, storm windows, screens, shutters, awnings or similar seasonal accessories; presence of safety glazing in doors and windows; remote operators for automatic garage door openers; fences; geological, geotechnical, or hydrological conditions; soil conditions; recreational facilities such as swimming pools, spas, saunas, playground equipment, tennis courts, etc.; barns, sheds or other outbuildings or structures; buried fuel storage tanks; and erosion control or earth stabilization measures. The home inspector is not required to move stored items, equipment, furniture, vegetation, soil, snow, ice, debris, or other items that obstruct access or visibility. The inspector at his/her discretion is not required to enter confined spaces where such entry is in the opinion of the inspector not safe.

COMPONENT CHARACTERISTIC

GARAGE STYLE

Attached/Integral

DRIVEWAY

Asphalt

EXTERIOR WALL FINISHES

Vinyl

Brick/Stone

EXTERIOR WALL TRIMS

Vinyl

SOFFITS

Aluminum

FASCIA

Aluminum

GUTTERS

GARAGE STYLE: Garages, if provided for the property being inspected, are either attached or detached from the house. Attached garages require special considerations from the perspective of a home inspection, both for safety aspects and the effect of the garage to other systems in a home. For example, whether a garage is attached at one wall only or fully integral to the design can have impact to the performance of the structure, roof, insulation, ventilation, and heating and cooling systems. Safety considerations may include provision for gas-proofing, fire separation, automatic door closure for doors from the garage to the house, etc., as appropriate to the requirements of local jurisdictions.

WALL FINISHES: The purpose of wall finishes is to provide a durable surface for the protection of the wall structure and interior elements of the home. Typical finishes include brick, stone, stucco, vinyl siding, aluminum siding, and wood products such as shakes, siding, paneling, etc. Various trims are applied, and are typically made from plastic or vinyl, metal, and wood. The design for the exterior wall system includes provision for weather-tightness, support and attachment, and sealing. For the homeowner, attention to caulking needs, wood surface preservation, wall finish material deterioration over time, and repairs due to damage are the most common maintenance requirements.

SOFFITS AND FASCIAS: Soffits and fascias provide the defining transition between wall and roof elements, and serve as the protective finish to underlying framing elements. Soffits often provide a principle means for ventilating enclosed roof areas. The most common

Aluminum

DOWNSPOUTS

Aluminum

LOT GRADING

Generally Slopes Away
Visually Restricted - Some areas may be visually restricted by; Structure, Snow Cover, Foliage, Vegetation, Ground Cover (rocks, mulch, etc.)

LOT DRAINAGE

Front Slopes to Street
Rear Slopes Away

EXTERIOR DOOR STYLES

Single
Sliding

EXTERIOR DOOR MATERIALS

Metal
Vinyl

GARAGE DOORS

Vehicle Door
Entry Door to House

GARAGE DOOR OPERATORS

Auto Door Opener

WINDOW STYLES

Sliding

WINDOW SASH MATERIAL

Vinyl

WINDOW GLAZE FEATURES

Double Glazed

PORCHES AND DECKS

Back

EXTERIOR STAIRS

Wood (deck or porch)

EXTERIOR STAIR/DECK

RAILINGS

Wood/deck/porch/stairway/balcony

materials are vinyl, aluminum, and wood. Proper attachment is critical, as well as ensuring wood finishes (where used) are painted and maintained. Attention to damage, detachment, and deterioration are the most common maintenance requirements.

GUTTERS AND DOWNSPOUTS: The purpose of gutters and downspouts, when installed, is to provide the means for capturing water drainage at the edges of roof surfaces and controlling the means of discharge, preferably away from the foundation walls. Attention to removing obstructing debris, and attending to mechanical damage, detachment, deterioration, and leakage are the most common maintenance activities.

LOT GRADING: Grading of the soils surrounding the home should be such as to facilitate water drainage away from the foundation, thus reducing the risk of water penetration into basement areas. Combined with downspout water discharge, water should not be permitted to collect near the foundation walls. The lot grading should be periodically reviewed by the homeowner, particularly to observe how readily water drains away from the structure after heavy rainfalls and with rapid snow melts.

DOORS: The primary purpose of doors is to provide the means of access to the home, as well as to serve to resist intrusion. In the case of garage vehicle doors, periodic adjustments may be required and garage auto door openers, where installed, should be reviewed on a regular basis to ensure safe operation. In the case of garage/house doors, a door closer mechanism should be installed and should be periodically checked and adjusted as required to ensure the door provides a gas-tight seal between the house and garage. All other doors should be periodically checked for operation, security, and to ensure they maintain a weather-tight seal. Typical maintenance requirements include adjustment, caulking of door frames, maintaining weatherstripping, and as appropriate to the type of door, painting. Door hardware, such as deadbolt locks, door handles, etc. should be maintained, and if needed, improved, to reduce risk of forced entry.

WINDOWS: The primary purpose of windows is to provide light and ventilation to the home. Typical window sash and frame materials include vinyl, metal, and wood. Maintenance needs vary with the type and style of windows; generally windows should be periodically checked for operation, weathertightness, and deterioration. As well, sealed panes should be monitored for loss of seal, and may require repair or replacement as required. Window screens should be installed on openable windows, and repaired or replaced as required. Windows at or near ground level should be checked for condition of latches, etc., and improved if required to reduce the risk of forced entry.

PORCHES AND DECKS: The purpose of decks and porches, as a minimum, is to provide a landing area at entry points to the home. Larger decks and porches often comprise an exterior defining feature of the home, and facilitate outdoor activities and enjoyment. Common construction materials are wood, concrete, and more recently, composite wood/plastic decking materials are now available. For wood products, attention to damage, deterioration, and preservation are the most common maintenance requirements.

STAIRS AND RAILINGS: Stairs provide for passage between different elevations, such as at doors and decks; railing provide for safety at stairs, landings, porches, and decks, where there is a risk of falling. Both stairs and railings must be properly designed, installed, and maintained in consideration of safety factors. All stairs and railings should be periodically reviewed for safety, and maintenance applied as appropriate to construction.

WALKWAYS

Concrete

PATIOS

Concrete/Masonry

RETAINING WALLS

Ret Wall Blk

RESTRICTIONS:

At the time of inspection, the following restrictions applied to the examination of this system:

Viewing Restricted Under or Behind Decks, Stairs, or Porches

Foundation: Shrubs, Greenery, Obstructed Viewing

Foundation: Visual Restriction Due to Foundation Coatings, Wall Coverings, Attached Structures, Grading, Ground Cover, Snow, Stored Items, Obstructions, or Insulation Systems

Walls / Roof: Snow/Ice/Frost or Frozen/Slippery Ground Surface, Height, Debris, Foliage, Miscellaneous Conditions That Prevents Safe or Complete Access and/or Viewing

Grade: Visual Restriction Due To Snow, Ground Cover, Gardens, Foliage, Vegetation, Landscaping, Storage, Obstructions, or Final Grading Incomplete

Visually Restricted Due To Snow, Structures, Storage, or Misc Obstructions: Stairways, Driveways, Decks, Walkways, Patios

Garage: Visual Restriction (Storage, Obstructions, Vehicles)

EXTERIOR ELEMENTS ASSESSMENT SUMMARY:

Overall Condition: Generally Acceptable; Some Repairs, Maintenance, or Adjustments Required, Monitoring and/or Upgrades Recommended, In assessing the various aspects of the exterior elements of this home, conditions are noted where repairs, maintenance, or upgrades are recommended or required so the noted item may perform as intended. Assuming the noted conditions are repaired or upgraded, the overall condition would be acceptable, with periodic monitoring and preventative maintenance activities performed.

Deficiencies Noted. In assessing the various aspects of the exterior elements of this home, conditions are noted that are of a more concerning nature, such as safety, cost of repair, potential for additional damage, affecting the ability of the exterior components to meet all aspects of intended use and functionality. Correction of these deficiencies should be considered as a priority.

Safety and/or Health Concerns Noted. In assessing the various aspects of the exterior features of this home, conditions are noted that affect the health and safety of the home's occupants. Correction of these deficiencies should be considered a priority.

DEFICIENCY SUMMARY:

LOCATION: Garage Floor **SYSTEM:** Exterior

CONDITION: **Garage concrete floor displays cracking (minor)**

EXPLANATION: Cracks in the garage concrete pad is an indication of settlement or normal product shrinkage. Settlement causes may include soil compaction, soils with low bearing capacity, product shrinkage, age, soil saturation near the garage structure, poor lot drainage, absence of a gutter system, and ground heave. Minor cracking and/or indications of minor settlement are common and as a condition by itself does not usually result in garage structure issues.

IMPACT/CONSEQUENCES: I recommend monitoring this condition for excessive changes. Cracks should be sealed to help prevent further infiltration of moisture and road chemicals that can cause additional damage and deterioration of the concrete floor. Consult a Specialist should the cracks become more severe over time to determine the cause and remedial action to help prevent further cracking of the garage floor.

RECOMMENDED ACTION: Monitor | Evaluation and When Required - A Course of Action Determined by Specialist

LOCATION: Garage Floor **SYSTEM:** Exterior

CONDITION: Garage concrete floor displays pitting and/or "rock pops" (minor)

EXPLANATION: The garage concrete floor surface is observed to have minor pitting or have rock pops. This condition is generally the result of repeated moisture and/or corrosive chemical exposure.

Note: Rock pops: Sometimes this is due to how the concrete was worked and finished when it was first poured.

NOTE: This condition is somewhat common for this part of the country with our weather, salts, and corrosive chemicals used on our walkways, and on our roadways that eventually drip from our cars.

IMPACT/CONSEQUENCES: Although minor pitting is primarily a cosmetic condition, the minor pitting may not allow proper cleaning or drainage. The value for future use should be weighted against safety, use, and cost factors. Sealing the garage floor should be considered to help prevent further deterioration.

NOTE: There are companies that may be able to resurface the floor and/or apply acceptable sealers on the concrete that may help with this condition.

NOTE: Many experts generally advise never to seal concrete with paint, epoxy coatings, or any coating that lays on top of the floor surface. Penetrating waterproofing sealers are generally more highly recommended by the experts.

RECOMMENDED ACTION: Review | Consult Specialist

LOCATION: Garage/House Door **SYSTEM:** Exterior

CONDITION: Garage/house door; door closer is missing, inoperable, or ineffective.

EXPLANATION: A mechanism is not installed, not operable, or not effectively installed on the door between the garage and the house that will permit and assure self-closure, such that the door will close and latch after the door is released from an open position.

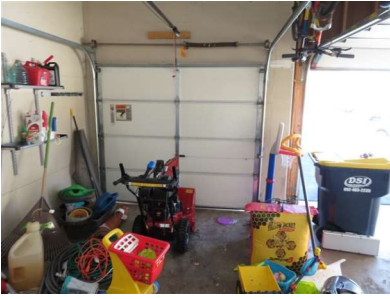
NOTE: It may be beyond the scope of the home inspector to determine if a door closer was required or if the requirement was enforced in this jurisdiction at the time the home was built. Whether or not required or enforced, the intent of having a door closer was to help assure that a gas-tight barrier and a fire barrier, was established between the garage and the house.

NOTE: Door closers may present a condition where injury from fingers being pinched in the door are more likely. Be aware of this and take caution.

IMPACT/CONSEQUENCES: A door that connects the house with an attached garage, when it does not close and latch under the control of a suitable door closer or when it is missing, may be considered a safety concern, as fumes and fire from the garage may migrate and spread into the house. A mechanism for door closure when installed correctly, helps ensure the door automatically closes, latches, and seals when the door is released. Adjustments to the door or door hardware may be necessary for the correct operation of the door closer.

RECOMMENDED ACTION: **Safety Concern | Fire and Safety Upgrade Recommendation**





LOCATION: Garage Vehicle Door (single door) **SYSTEM:** Exterior
CONDITION: Vehicle door opener operation unsatisfactory. (hold button)
EXPLANATION: The vehicle door opener button must be held in to close the door completely. The home inspector is not required to correct these conditions to evaluate the opener.

NOTE: This condition may prevent the home inspector from fully evaluating the vehicle door.

IMPACT/CONSEQUENCES: The intended safe and correct operation of the door opener could not be verified as the unit failed to operate correctly under normal operating conditions and with installed control devices.

RECOMMENDED ACTION: Adjust, repair, or replace

LOCATION: Garage/House Stairs/Step(s) **SYSTEM:** Exterior
CONDITION: Garage stair hand railing/guard recommended (safety upgrade)

EXPLANATION: Where handrails are missing or non-conforming there is the potential for slips and falls when traversing the steps with children and the elderly.

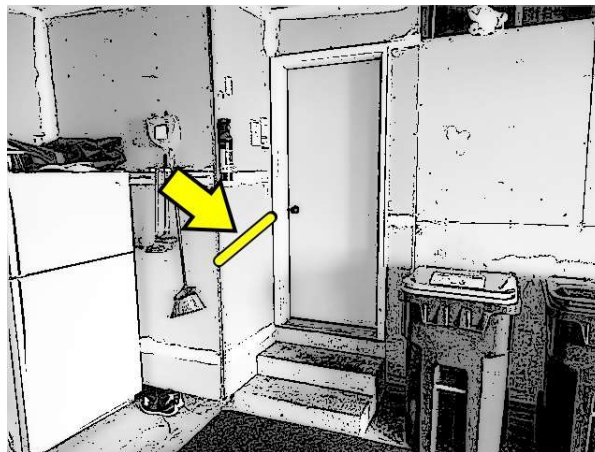
Handrails that are "grippable" are recommended on stairs with two or more risers; both sides if stairs are over 44 inches wide, must be 34 - 38 inches above the stair tread nosing, must extend from directly above the bottom riser to directly above the top riser, be continuous for the entire length of a flight of stairs, ends be returned to the wall or terminate in a newel post, have a space of not less than 1½ inches between the handrail and the wall, must support a 200 lb. load, have a circular cross section of 1¼ inches to 2 ⅝ inches or equivalent with 1/8 radius edge (2X4 or other dimension lumber placed on edge or flat is generally not acceptable)

Guards must not be climbable, must be a minimum of 36" high and are generally recommended for any porch, balcony, deck, or other raised floor surface located more than 16 inches above the floor or grade, be at least 34" high from the stair tread nosing and installed on the open side(s) of stairs with a rise of 16 inches+ above the floor or grade, have no openings greater than 4" or 6" at stair riser/tread/guard opening, be able to support a 200 lb. load applied in any direction.

IMPACT/CONSEQUENCES: The primary function of interior railings is to protect people from falling and being injured. Missing railings may result in injury. Where railings appear to be non-conforming, there may be an indication of poor design, construction, or maintenance, such that the railings do not appear to be in a condition that meets its intended function of protecting people from the risk of injury. Failure to correct railing deficiencies is a safety issue, and in some cases may have legal consequences where a person is injured as a result of neglecting to provide adequate safety provisions.

NOTE: Although this may not be required with the observed number of step risers, this condition may still create a difficult or safety concern when traversing the stair(s).

RECOMMENDED ACTION: Recommended Installing, Repairing, or Correcting - **Safety Upgrade**





LOCATION: Exterior Front **SYSTEM:** Exterior

CONDITION: Walkway/stairway junction has **open gaps, cracks, or seams.**

EXPLANATION: Walkway / stairway junction has open gaps, cracks, or seams between the walkway and stairs that may allow water to penetrate and get underneath or between the walkway or stairs which may result in "frost push" causing additional separation, heave, or settlement.

IMPACT/CONSEQUENCES: This condition may promote undesired effects, which may include issues such as moisture problems at the home's foundation, soil erosion, or settling and heaving of the concrete walkway or step. Filling this gap with a nonabsorbent material such as expandable foam to prevent additional frost push is recommended by many professionals. Large gaps may be a **SAFETY CONCERN** by creating a trip hazard and causing injury. Advice from a Specialist is recommended especially for larger separations.

RECOMMENDED ACTION: Repair | Replace | Consult Specialist



LOCATION: Exterior Rear **SYSTEM:** Exterior

CONDITION: Concrete pad has separated from structure

EXPLANATION: The concrete pad at the noted location was observed to have shifted, such that this movement has caused separation from the foundation. Some causes of this condition may be settlement, heave, or frost push.

IMPACT/CONSEQUENCES: Gaps between the pad and structure are susceptible to moisture accumulation and frost expansion which may promote additional separation. The gaps should be properly filled with a nonabsorbent material and caulked. Review by a concrete Specialist for suggestions of remedial action is recommended.

RECOMMENDED ACTION: Recommend Review by a Specialist



LOCATION: Exterior Rear **SYSTEM:** Exterior

CONDITION: Concrete pad or landing is sloped towards foundation -

EXPLANATION: A concrete pad or landing has a slope that will result in water flowing towards or pooling at the foundation of the house or garage.

IMPACT/CONSEQUENCES: Concrete pads and landings should be sloped to promote drainage away from the foundation of the house or garage. Water accumulation near the foundation may lead to foundation and basement dampness issues. In some cases, frequent saturation of soils may result in erosion of soils below the footings, and in combination with soil pressure and frost heave, can result in damage to the foundation. Sealing of seams between the concrete pad/landing and structure is recommended. Replacement may have to be considered.

RECOMMENDED ACTION: Repair | Consult Specialist



LOCATION: Deck SYSTEM: Exterior

CONDITION: **Exterior stair hand railing/guard is missing or non-conforming**

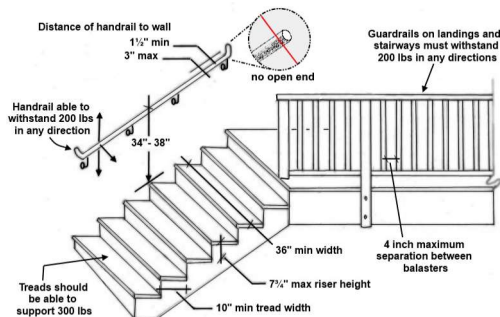
EXPLANATION: **Handrails that are an approved dimension and easy to grasp (by adults and children)** are recommended on stairs with two or more risers; both sides if stairs are over 48 inches wide or every 48 inches on wider stairs, must be 34 - 38 inches above the stair tread nosing, must extend from directly above the bottom riser to directly above the top riser, be continuous for the entire length of a flight of stairs, ends be returned to the wall or terminate in a newel post, have a space of not less than 1½ inches between the handrail and the wall, must support a 200 lb. load, have a circular cross section of 1¼ inches to 2⅝ inches or equivalent with ⅛ radius edge (2X4 or other dimension lumber placed on edge or flat is not acceptable).

Guards are recommended to be a minimum of 36" high and are required for any porch, balcony, deck, or other raised floor surface located more than 16 inches above the floor or grade, be at least 34" high from the stair tread nosing and installed on the open side(s) of stairs with a rise of 16 inches+ above the floor or grade, have no openings greater than 4" or 6" at stair riser/tread/guard opening, be able to support a 200 lb. load applied in any direction.

Fasteners on all posts (guards and handrails) should be fastened securely using bolts and washers, not lag screws.

IMPACT/CONSEQUENCES: The primary function of interior railings is to protect people from falling and being injured. There is indication of poor design, construction, or maintenance, such that the railings do not appear to be in a condition that meets its intended function of protecting people from the risk of injury. Failure to correct railing deficiencies is a safety issue, and in some cases may have legal consequences where a person is injured as a result of neglecting to provide adequate safety provisions.

RECOMMENDED ACTION: **Safety Concern** - Recommended Installing



Check with your local authority for step, railing, and guard regulations that apply to your home



LOCATION: Deck **SYSTEM:** Exterior

CONDITION: **Unprotected wood surfaces (general maintenance)**

EXPLANATION: Wood components (decking, railing, guards, or stairs) are observed to be in need of paint, sealant, or other protective coating.

IMPACT/CONSEQUENCES: Wood that is not protected may experience accelerated deterioration or damage due to moisture penetration, drying and cracking, damage from freeze/thaw cycles, organic growth, and pest attack. Exterior wood should be monitored closely to ensure the protective finishes remain intact.

NOTE: Proper application of the protective sealant is a labor intensive job. Professionals claim an oil based penetrating sealant offers longer and better protection. Acrylic or latex finishes may not provide the effective long term performance that oil based products offer especially on horizontal surfaces.

RECOMMENDED ACTION: Recommended Maintenance



LOCATION: Deck **SYSTEM:** Exterior

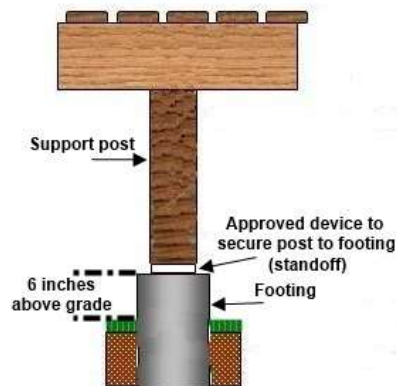
CONDITION: Support column (post) concerning - Not on a footing raised to recommended minimum height

EXPLANATION: One or more support columns (posts) are observed to be; installed into the footing, in direct contact with the soil or close to the soil, or are sitting on a horizontal surface where snow and moisture may have direct and prolonged contact with the support column. Although having the support columns in direct contact with the soil is permitted (if they are approved for ground contact), installing the columns properly secured with approved fasteners and devices to the top of footings that are a minimum of 6 - 8 inches above grade to create an elevated surface and allow drainage away from the bottom of the support columns is recommended. It may not be possible to determine if the columns are approved for ground contact. Although rotting or deterioration may be somewhat prohibited by the "treatment" given to a treated wood column, the bottom of the column may wick moisture up into the column and in our climate it may go through a freeze - thaw cycle, resulting in damage to the support column.

NOTE: It may not required that the columns be raised above grade, but it is a better and recommended method. Check with the local jurisdiction on current regulations regarding this condition.

IMPACT/CONSEQUENCES: Support columns that are in contact with or close to the ground or horizontal surface will tend to rot or rust at the bottom, as they are in a environment where the lower portion of the column will be damp over extended periods of time. Although some natural and treated woods are more resistant to rot than others, all wood will over time deteriorate when in contact with the ground and soil moisture. In addition to the deterioration concerns of the wood support columns, is the damage that may occur to the bottom of the columns as they wick moisture during colder climates and then go through freeze/thaw cycles which may expand and shred, tear, or "mushroom out" the bottom of the column resulting in ongoing damage and deterioration over time. Metal columns will also deteriorate (rust / corrode) when exposed to damp conditions for extended periods of time. The columns should be periodically monitored for; changes in the condition and loss of integrity. Replacement of the columns, if and when necessary, by a licensed contractor is advised. Note that the columns are crucial to the support structure of the deck, balcony, or stairway and structural failure may occur should the columns(s) deteriorate to a degree that they can not bear their intended load.

RECOMMENDED ACTION: Monitor; Replace should severe wood rot, deterioration, or corrosion be observed | Consult Specialist | Recommended Upgrade





LOCATION: Deck **SYSTEM:** Exterior

CONDITION: **Cantilevered Wall / Deck attachment concerning**

EXPLANATION: The deck is observed to be attached to and supported by a cantilevered wall. This method of supporting the deck is a concern because the cantilevered wall may not have been designed to support the additional weight of the deck. Additional support columns and beams or properly framing the deck around the cantilevered wall are usually recommended and used to support this area of the deck.

IMPACT/CONSEQUENCES: Improperly configured and supported decks attached to cantilevered walls may over time cause sagging and eventually structural failure of the cantilevered wall. Determining the weight bearing capacity of the cantilevered wall is beyond the scope of the inspector. This condition should be evaluated by a licensed contractor that is familiar with current methods and regulations for deck construction, to assure the deck attachment and support meets the current standards, local jurisdiction requirements, or the actual designed and anticipated load requirements of the deck.

RECOMMENDED ACTION: Safety Concern | Review | Consult Specialist



LOCATION: Deck **SYSTEM:** Exterior

CONDITION: Support column (post) is out of plumb

EXPLANATION: Columns should be generally plumb to transmit loads vertically to their footings. Structural columns (whether wood, masonry, concrete or steel) should not be out of plumb more than a ratio of 1" in 8'. As well, structural stability of the column would be in doubt where the amount out of plumb exceeds 1/3 of the width or diameter of the column. This may be due to high winds, settlement, deterioration of the footings, or absence of diagonal bracing.

IMPACT/CONSEQUENCES: The ability of the column to bear its intended load, as well as the current and future stability of the column to bear loads, is a concern where a column exhibits either of the above out-of-plumb conditions. A review of the condition by a Specialist is recommended. Alteration of columns should only be done under the direction of a Specialist.

RECOMMENDED ACTION: Consult Specialist



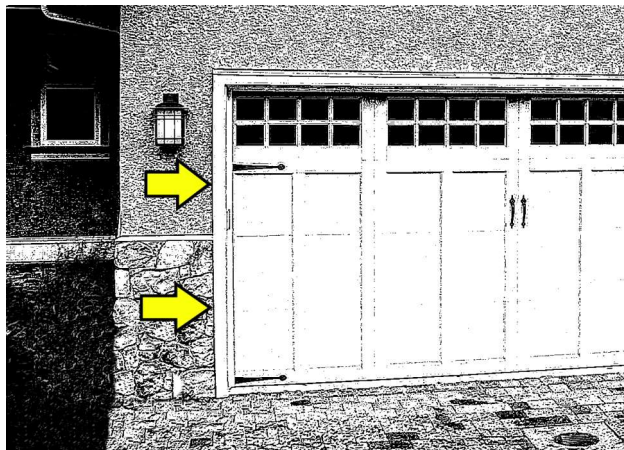
LOCATION: Garage Vehicle Door **SYSTEM:** Exterior

CONDITION: **Garage vehicle door trim / wall cover junction requires caulking (general)**

EXPLANATION: The seam along the junction of the vehicle door trim and wall cover (brick, stone, stucco, vinyl, engineered siding, etc.) requires caulking to help prevent infiltration of air, moisture, and/or pests.

IMPACT/CONSEQUENCES: Caulking at these seams serves several functions, including preventing air, water, and pest infiltration, and restricting heat loss or gain through the exterior wall. Moisture has the greatest potential for damage; unintended water infiltration into the house can cause significant damage to surfaces and property, and if not corrected, may lead to damage and rot to structural elements. Caulking repairs are required at the noted location(s), and should be performed at the earliest opportunity. Preventative maintenance should include reviewing and repairing exterior caulking at all locations where required.

RECOMMENDED ACTION: Repair | Maintenance | Consult Specialist





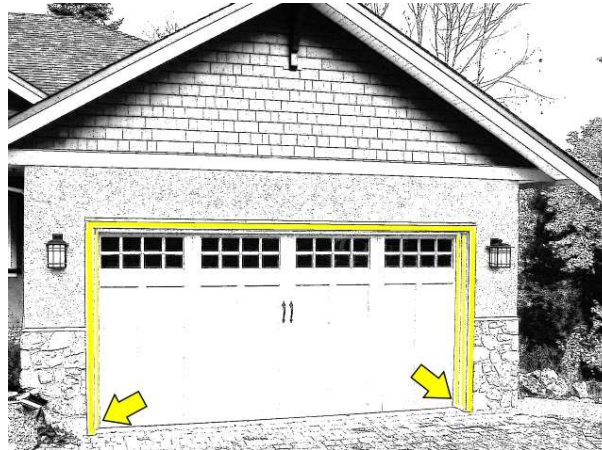
LOCATION: Garage Vehicle Door **SYSTEM:** Exterior

CONDITION: **Vehicle door trim** requires maintenance (paint, caulk, repair)

EXPLANATION: The garage vehicle door trim is in need of maintenance such as an application of protective finish, caulk, or repair. Maintaining the condition of the wood elements of an exterior door trim is an ongoing maintenance activity to prevent damage to wood due to the effects of the sun and weather. Occasionally repair or replacement of the wood components are required. Wood requires periodic finishing to protect against rot. Caulking where trims meet wall covering such as siding and stucco should be caulked to prevent moisture infiltration. The area where the trim or jam meet the threshold or sill should be caulked to prevent wicking, infiltration, damage, and deterioration. Many professionals claim that applying oil based primers prior to applying the finish coat (latex paint) may provide better protection for horizontal wood elements and wood components close to grade.

IMPACT/CONSEQUENCES: Failure to properly maintain exterior finishes will result in deterioration of the trims and wood elements, and left uncorrected, may result in water infiltration and damage to the wall structure or infiltration to interior elements.

RECOMMENDED ACTION: Recommended Maintenance





LOCATION: Foundation - Various Locations

SYSTEM: Exterior

CONDITION: Exterior foundation insulation system is incomplete, not sealed, loose, damaged, or deteriorated

EXPLANATION: The exterior insulation foundation system is observed to be incomplete, unsealed, loose, damaged, or deteriorated and is in need of replacement or repair. Damaged or deteriorated insulation should be repaired or replaced. Open gaps, cracks, and voids should be properly sealed and covered to prevent infiltration of moisture and pests. Foundation insulation coatings or covering should be reapplied or repaired where necessary.

IMPACT/CONSEQUENCES: Areas of foundations with incomplete, unsealed, loose, damaged, or deteriorated insulation coatings or coverings are vulnerable to adverse effects of the weather. The foundation wall insulation may become susceptible to water infiltration and may not be able to perform as expected. The protective coatings that is incomplete, unsealed, loose, damaged, or deteriorated foundation insulation should be replaced, repaired, and/or properly attached to function as intended.

RECOMMENDED ACTION: Repair/Replace



LOCATION: Exterior Left Side

SYSTEM: Exterior

CONDITION: Wall penetration of sump pump drain pipe is not sealed at the exterior wall

EXPLANATION: The pipe should be sealed at the point where they penetrate the exterior wall. Sealing of penetrations through the wall is essential to preventing air, water, and pest infiltration to the home's interior. Where wall penetrations are observed through vinyl siding caulking or sealing with a putty material is most likely not the method the manufacturer recommends. When vinyl siding is present, proper wall boxes used for these types of wall penetrations wall should be installed. These allow for the expansion and contraction associated with vinyl siding.

IMPACT/CONSEQUENCES: Unintended water infiltration into the house can result in significant damage to surfaces and property, and if not corrected, may lead to damage and rot to structural elements. Unintended air infiltration may affect interior air quality and conditioning. Unintended pest entry can result in damage to interior finishes and belongings, and in some cases may present health risks. Corrective action is required to seal all openings through the exterior wall system.

RECOMMENDED ACTION: Repair



LOCATION: Exterior Left Side **SYSTEM:** Exterior

CONDITION: Wall penetration of faucet or water supply pipe is not caulked/sealed at exterior wall

EXPLANATION: Gaps at the contact area of faucet or water pipe and the exterior walls should be sealed at the point where they penetrate the exterior wall to prevent water, air and pest infiltration. Where wall penetrations are observed through vinyl siding caulking or sealing with a putty material is most likely not the method the manufacturer recommends. When vinyl siding is present, proper wall boxes used for these types of wall penetrations wall should be installed. These allow for the expansion and contraction associated with vinyl siding.

IMPACT/CONSEQUENCES: Unintended water infiltration into the house can result in significant damage to surfaces and property, and if not corrected, may lead to damage and rot to structural elements. Unintended air infiltration may affect interior air quality and conditioning. Unintended pest entry can result in damage to interior finishes and belongings, and in some cases may present health risks. Corrective action is required to seal all openings through the exterior wall system.

RECOMMENDED ACTION: Repair

LOCATION: Exterior Left Side **SYSTEM:** Exterior

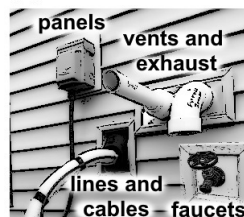
CONDITION: Wall penetration installation non-conforming (vinyl, aluminum, or steel siding)

EXPLANATION: Wall penetrations should be properly installed using the appropriate siding "boxes" or properly installed "J" channel, which allows the siding to perform as the manufacturer intended. Wall penetrations such as gas pipe, exhaust and intake vents, faucets, electrical panels and conduit, cables, dryer vents, sump pump discharge pipe, etc. that are installed through the siding and then caulked to seal around them are non-conforming and may prevent normal expansion and contraction of the siding. When this type of siding is present, proper siding "boxes" or "J" channel for all wall penetrations should be used.

IMPACT/CONSEQUENCES: Buckling of the siding may occur as well as detachment due to the restricted movement caused by non-conforming installations. Unintended pest entry can result in damage to interior finishes and belongings, and in some cases may present health risks. Additionally, infiltration past the wall cover can result in damage to the wall structural components and/or interior wall elements, which may result in conditions that promote mold. Corrective action is required to assure all siding penetrations are done using the correct wall box for each application. A Specialist may be required to perform the necessary action.

RECOMMENDED ACTION: Install Correctly | Consult Specialist

examples of wall penetrations installed with approved boxes





LOCATION: Exterior Rear **SYSTEM:** Exterior

CONDITION: Vinyl siding damaged (minor)

EXPLANATION: Damage is noted in the exterior vinyl siding or siding trim components such as cracks or holes.

IMPACT/CONSEQUENCES: If the damage results in exposing underlying materials otherwise protected by the siding, water penetration is a possible consequence. Additionally, damaged exterior wall coverings are cosmetically detracting.

RECOMMENDED ACTION: Repair | Replace

LOCATION: Exterior Rear **SYSTEM:** Exterior

CONDITION: Sliding door maintenance recommendation

EXPLANATION: Over time sliding door systems (latching hardware, channels, tracks (door and screen), guides, wheels, and frames) may require periodic cleaning, lubrication, adjustments, and other minor maintenance to prolong the life of the sliding door system and make it easier to operate.

IMPACT/CONSEQUENCES: If periodic cleaning and lubrication is not performed the tracks, channels, operating mechanisms, latches, guides, and wheels may become restrictive and worn making the door difficult to open and close resulting in undue stress on the frame, potentially damaging seals of insulated glass. Periodic examination, cleaning, and lubricating the tracks, channels, guides, hardware, and wheels should be part of a regular maintenance routine.

RECOMMENDED ACTION: Clean | Perform Regular Maintenance

LOCATION: Exterior Walls - Beneath Wall Cover **SYSTEM:** Exterior

CONDITION: Siding installed without a "house wrap" material or weather resistant barrier

EXPLANATION: Weather Resistant Barrier (WRB) is the layer of material that is installed between the exterior sheathing and the siding. This importance of this layer is its ability to reduce airflow and prevent moisture travel into the wall cavity. The siding is noted to be installed without a house wrap or weather resistant barrier. Siding has always been designed as an exterior cladding, not a weather resistant barrier. Siding is designed to allow the material underneath it to breathe; therefore, it is not a watertight covering. Although installing siding with a house wrap or other moisture resistive barrier was commonly done for a period because it was not enforced until April 2003, it has always been recommended by the siding manufacturers.

IMPACT/CONSEQUENCES: To achieve designed performance, siding should be installed over a water-resistive barrier system that includes 1) a continuous water-resistive material and 2) properly integrated flashing around all penetrations and where siding interfaces with other building products such as brick, stone, or stucco. Refer to the manufacturer's instructions for specific product applications and recommendations. If the siding was not installed to current standards, the underlying sheathing and possibly other wall components may not perform as intended to the new building standards. Evaluation by a siding specialist should be considered.

RECOMMENDED ACTION: Review | Consult Specialist

OBSERVATIONS & SUGGESTIONS:

Exterior elements should be inspected at least twice a year (spring and fall) to assess for items requiring repair or maintenance. This includes all exterior surface finishes; trims and flashing; gutters and downspouts; soffits and fascia's; porches, decks and stairs; sidewalks and driveways; doors and windows; and roofs. Be particularly vigilant for conditions that may result in pest or water infiltration.

It may not be possible to determine if all aspects of the original construction or all aspects of any additions or modifications to the original property were constructed properly or according to codes and regulations of the regulating body as home inspectors are not code or building inspectors. I recommend checking with the local government building department to assure proper permits were issued for any work performed on decks, porches, additions, modifications, roofs, etc., so you know if it was completed by a licensed professional and to the local and/or state codes, rules, regulations, or current standards, and that a final inspection was performed by the department issuing the permit(s). Please remember that codes are minimum standards and are not necessarily the best, safest, healthiest, or smartest ways of doing things on a home or structure and they may not address all of the safety, health, and liability issues on a home or structure.

Pictures shown may be only a representative sample of all the related areas of concern.

PURPOSE

The primary purpose of the your home's structural system is to support the loads placed in and on the house. The structure of the house includes elements that form the home's "skeleton", specifically the footings, foundation, walls, floors, and roof. Sound structural design resists site and external factors that could result in undesired physical changes to the structure as a whole, such as settlement, effects of both static loads (such as the weight of the structure and its contents) and dynamic loads (such as wind loads, snow loads, and number and movement of people in the house), and other sources of stress on the structure.

INSPECTION PROCESS

As documented by this Report, the inspection of the structural system includes examination of major structural components, and may include probing a representative number of structural components where deterioration is suspected or where there is a clear indication that possible deterioration exists. Probing is not performed where probing would damage any finished surface or where no deterioration is visible. Elements of the structural system that are examined and reported include: the foundation, the floor structure, the wall structure, the ceiling structure, and the roof structure. Also reported are signs of abnormal or harmful water penetration into the building or signs of abnormal or harmful condensation on building components. Methods used to inspect the underfloor crawl space and attic, if present and accessible, are reported. The primary mode of structural examination is visual in nature; surfaces, coverings, and obstructions are not disturbed in the course of examination. The inspector does not normally provide any engineering or architectural services, and a home inspection does not typically offer an opinion on the adequacy of any structural system or component.

Note that the inspection may have restrictions to examination due to design and access. For example, attic areas containing loose-fill insulation are most commonly viewed at the hatch, and physical entry into the attic is not undertaken as it may result in disturbing insulation as installed and may present risk to the physical safety of the inspector. Also note that there may be leaks from the exterior into or through the structural components, such as walls, roof structure, ceilings, and foundation, which may only become apparent under specific weather conditions that were not encountered at the time of inspection. It should be further noted that moisture, condensation, and water infiltration conditions may exist at the time of inspection but are not apparent due to factors that conceal the direct observation of the condition(s). This may include coverings, furnishings, belongings, restricted access, etc., or are visible under specific lighting conditions or viewing positions.

ACCESS TO INSPECTED AREAS:

ATTIC HATCH LOCATION(S)	EXAMINATION METHOD	CRAWL SPACES
Hall Ceiling	Attic Examined From Ladder or Other Means at Attic Access	None Present or Visible

COMPONENT CHARACTERISTICS:

FOUNDATION WALLS

Concrete Block

ROOF STRUCTURE

Wood Truss (Where Visible)

ROOF SHEATHING

OSB/Waferboard (where

FOOTINGS: The footings transmit the weight of the house to the underlying soils, and are intended to support the building without settling. Footings are located below the foundation walls, and are normally constructed as poured concrete. Footings are also usually provided below load-bearing columns and walls at the basement level. Footings are not normally visible for examination during a home inspection.

FOUNDATION: The foundation walls transmit the weight of the structure to the footings as well as constrain lateral forces of the back-filled soils against the foundation. The design of the foundation system often includes provisions for window or door openings, waterproofing,

visible)

EXTERIOR WALLS

Wood Frame, Brick/Stone +
Cladding

BASEMENT FLOOR

Concrete Floor

BEAMS

No Beams Installed

BEAM SUPPORT

N/A

COLUMNS

N/A

FLOOR JOISTS

Solid Wood

FLOOR SHEATHING

OSB/Waferboard

COLD STORAGE

None Present

and insulation. No attempt should be undertaken to alter or modify these structural elements without evaluation by a structural expert.

ROOF STRUCTURE: The roof structure, comprised of framing elements and sheathing, is intended to define the shape of the roof, and to transmit roof loads to the lower structural elements such as load-bearing walls and beams. The design of the roof often includes provision for establishing a weather-tight building envelope, roof surface drainage, ventilation, and insulation. No attempt should be undertaken to alter or modify these structural elements without evaluation by a structural expert.

EXTERIOR WALLS: Exterior walls of homes are most commonly wood frame in construction and are intended to transmit loads from the roof and floor structures to the foundation. Multi-unit structures may be constructed with walls constructed with concrete block or poured concrete. The design of the exterior wall structure usually includes provision for exterior finishes such as brick or cladding, openings such as doors and windows, protection from air and water infiltration, and thermal insulation. Exterior walls resting on foundations should be considered load-bearing, and should not be altered without evaluation by a structural expert.

BASEMENT AND GARAGE FLOORS: The basement and garage floor elements in homes are usually poured concrete and are not structural in nature. The design of the concrete floor elements often includes provision for floor drainage. Basement floors should include provision for drainage, such as a floor drain or sump pit. Cracks in concrete floors are a common occurrence and generally are not an issue of concern, provided no water infiltration is evident, cracks are less than 6 mm (1/4") in width, and there are no apparent effects of settlement of soils below the slab.

BEAMS: Beams are intended to support the interior wall and floor structures, and transmit loads horizontally to the foundation, structural columns, or load-bearing walls. Beams may be constructed of solid or built-up wood, or steel. No attempt should be undertaken to alter or modify these structural elements without evaluation by a structural expert.

COLUMNS OR POSTS: Columns or posts are intended to transmit the load from beams vertically to foundation footings. A variation of columns are interior load-bearing walls, which transmit loads vertically to the floor structure, beams, and/or footings. No attempt should be undertaken to alter or modify these structural elements without evaluation by a structural expert.

FLOORS: Floors provide support for dynamic and static loads within the house. Floor construction is most commonly either wood joists or trusses, covered with a sub-flooring material (floor sheathing) such as waferboard, plywood, or wood planks. No attempt should be made to alter the joist or truss structures of the flooring system without evaluation by a structural expert.

RESTRICTIONS:

At the time of inspection, the following restrictions applied to the examination of this system:

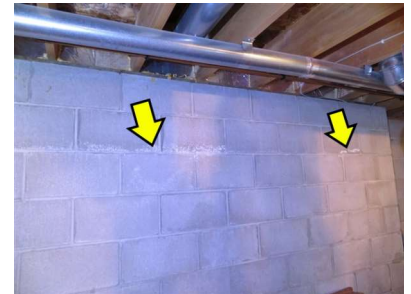
- Foundation, Interior: Storage/Obstructions
- Foundation, Exterior: Storage/Finish/Insulation/Parging/Wall Cover
- Foundation, Exterior: Attached Structures, Stairs, Decks

STRUCTURAL SYSTEM ASSESSMENT SUMMARY:

Overall Condition: Acceptable; Repairs Required. In assessing the various aspects of the structural elements of this home, conditions are noted where repairs are required. Assuming the noted conditions are repaired, the overall condition would be acceptable, with periodic monitoring and preventative maintenance activities performed.

Deficiencies Noted: In assessing the various aspects of the structural elements of this home, conditions are noted that are of a major nature, affecting the ability of the structural components to meet all aspects of intended use and functionality. Correction of these deficiencies should be considered as a priority.

DEFICIENCY SUMMARY:



LOCATION: Foundation - Interior Front, Left **SYSTEM:** Structure

CONDITION: Efflorescence is observed on foundation

EXPLANATION: Efflorescence is a white powdery deposit of salts that forms on the surface of the foundation wall. This is an indication of wall dampness, with the leaching of salts being the result of moisture working its way through the foundation wall. Although the wall can be cleaned to remove efflorescence, the causes for this condition need to be addressed before the condition can be eliminated. Causes may include grading, clogged gutters, no gutters, poor performing gutters, or close downspout termination to the foundation.

IMPACT/CONSEQUENCES: Efflorescence is a consequence of moisture drawing out salts in the masonry or concrete, and depositing it on the surface; it is generally powdery-white in appearance. New masonry and concrete is particularly prone to displaying efflorescence in its first year, but this condition should diminish in extent over time. Ongoing and persistent efflorescence is an indication that excessive trapped moisture is working its way through the wall, and should be investigated by a masonry or foundation specialist for evaluation for cause and to establish remedial action. Failure to correct may result in deterioration or damage with potentially expensive repairs.

RECOMMENDED ACTION: Monitor



LOCATION: Basement **SYSTEM:** Structure

CONDITION: Indications of past or possibly current water infiltration on concrete floor

EXPLANATION: The examination of the concrete floor, could not ascertain whether the indications of moisture present at the time of inspection, were from a previous condition that has now been corrected or from a current condition that is ongoing or likely to happen again. Indications of current infiltration such as; puddles, wet flooring, etc. or past water infiltration such as; water trail stains, mold, mildew, efflorescence are observed.

IMPACT/CONSEQUENCES: The concrete floor in the area of concern should be monitored over time to ascertain whether there is an active leakage condition. Should a current leak condition exist, water penetration past the exterior wall system or floor may cause significant and costly damage to the structure, interior features, and interior contents of a home. Uncorrected water penetration can lead to mold and rot issues within the structure with possible consequential health effects and costly remedial actions.

RECOMMENDED ACTION: Monitor | Consult Specialist

OBSERVATIONS & SUGGESTIONS:

The condition of the foundation should be checked twice a year (spring and fall) for indication of change, movement, or deterioration. In addition, look for evidence of moisture infiltration, dampness, and mold.

Visible wood structure elements should be checked at least twice a year for indications of deterioration or change. Items to check include visible areas of the floor structure (such as viewed from the basement), and an attic examination for the condition of the roof structure. Checks should include observing for water damage, pest infiltration, and deterioration.

Pictures shown may only be a representative sample of all the related areas of concern.

PURPOSE

The primary purpose of your home's interior elements is to serve the living and space requirements of its occupants. Defining elements include walls, ceilings, floors, doors, windows, and storage needs. In addition, the heating, cooling, ventilation, plumbing, and electrical systems are arranged to meet the needs of each room and space.

INSPECTION PROCESS

As documented by this report, the focus of the home inspection is to the functional rather than appearance aspects of your home's interior elements. The inspection of the interior elements includes examination of walls ceilings and floors; steps, stairways, and railings; balconies; countertops and a representative number of installed cabinets, and a representative number of doors and windows. This inspection does not normally include examination of surface finishes such as paint, wallpaper, or other forms of finish treatment, or installed elements such as carpeting, window treatments, central vacuums, household appliances, and recreational facilities (pools, spas, etc.).

The primary mode of examination of interior elements is visual in nature; surfaces, coverings, and obstructions are not disturbed in the course of examination. If observed, the inspector will report signs of abnormal or harmful water penetration into the building or signs of abnormal or harmful condensation on building components. This examination does not normally include assessment for air quality, moisture problems that may result in visible or concealed mold growth, presence of toxic or hazardous materials, presence of radon gas, and contaminants either present from construction or past use of the property. A qualified environmental service or expert should be consulted should there be concerns on any of these issues.

COMPONENT CHARACTERISTICS:

INTERIOR WALL FINISHES

Drywall

PARTY WALLS

N/A

CEILING FINISHES

Drywall
Textured

FLOOR FINISHES

Carpet
Linoleum/Vinyl

CABINETS AND COUNTERTOPS

Kitchen
Bathroom(s)

STAIRS

Basement
Second

DOOR STYLES

Regular Hinged

WINDOW STYLES

Sliding

WINDOW SASH MATERIALS

INTERIOR SURFACE FINISHES: Interior finishes provide for the decorative surfaces of walls and ceilings, and are most commonly applied as drywall; other common materials include paneling, tile, wood, and plaster. Ceilings may also have a textured finish, usually trowelled or sprayed on. These surfaces should be monitored for change over time: minor cracks may appear, normally at edges and corners, which are often due to normal construction material shrinkage. However, cracks of irregular shape and greater than hairline in size may be an indication of structural change and should be investigated. The appearance of water stains on wall or ceiling surfaces should be immediately investigated to ascertain their source.

FLOOR FINISHES: Floors provide a durable surface for foot traffic, and are usually a combination of materials that may include carpeting, hardwood flooring, laminate flooring, stone or ceramic tile, or resilient flooring. Hardwood and wood laminate floors are susceptible to change due to humidity, and efforts to control humidity should be considered, as either wood shrinkage or swelling can have both cosmetic and functional impact.

CABINETS AND COUNTERTOPS: Cabinets provide space for storage while countertops provide working surfaces, usually located in the kitchen, laundry, and bathroom areas of the home.

STAIRS: Stairs provide the means of access to different levels of the home. Safe passage is reliant on good design and construction practices, with provision for handrails and guards to reduce risk of fall injuries. Although the need for repairs are minimal, stairs and railings should be monitored and maintained with safety as the primary consideration.

DOORS: The primary purpose of interior doors is to meet the privacy needs to various rooms and areas of the home, or in the case of closets, to enclose storage areas. Wood is the most common material used in the door fabrication, although door styles include glass and mirror panes or panels. Door fit and operation, as well as hardware, may be subject to

Vinyl

WINDOW GLAZE
Double Glazed

FIREPLACES
None Installed

FIREPLACE/STOVE STYLE
Not Applicable

FIREPLACE/STOVE VENTING
Not Applicable

adjustment and maintenance.

WINDOWS: The primary purpose of windows is to provide light and ventilation to the home. Typical window sash and frame materials include vinyl, metal, and wood. Maintenance needs vary with the type and style of windows; generally windows should be periodically checked for operation, weathertightness, and deterioration. As well, sealed panes should be monitored for loss of seal, and may require repair or replacement as required. Examination for the presence of condensation on windows should be done during cold weather. Often the cause of condensation or ice on windows is due to high humidity levels in the home, in which case efforts to control humidity should be investigated and implemented. Improving air flow at windows may also help to reduce the occurrence of condensation, such as opening blinds or curtains, and ensuring air from forced air registers is directed towards the windows.

FIREPLACES AND STOVES: Fireplaces and stoves are generally installed in homes for aesthetic reasons and ambiance, although these may also serve to provide heating. Proper design, installation, and maintenance is essential. Wood stoves and fireplaces require particular attention, due to the build up of creosote in chimneys, which can become a fire hazard. Care in the use and maintenance of fuel-burning appliances should be regarded as the primary considerations for safety.

RESTRICTIONS:

At the time of inspection, the following restrictions applied to the examination of this system:

Items not inspected include:

Cable/Satellite Systems, Appliances; Appliances (clothes washer, clothes dryer, dish washer, microwave, range, etc.) are only checked for operation, not checked for performance...there are just too many variables (cycles, modes, settings, etc.) that cannot be fully addressed by a Home Inspector during the home inspection process and time frame. Generally, Home Inspectors may not know if a particular appliance or any of the appliances are being sold with the home or are being replaced by the seller prior to the sale. Some appliances are not checked at all due to the hidden nature of the connections. The utility to an appliance may be checked when possible. I recommend that all appliances that the client knows are part of the sale of the home should be fully evaluated by an appliance Specialist., Telephone Systems

Limited visual inspection of interior elements is due to restrictions including:

Furnishings/Decorations/Obstruction, Finished Interior Surfaces, Surfaces under Floor Coverings, Storage

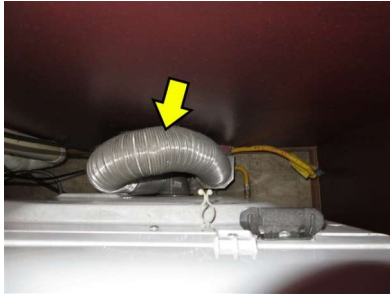
INTERIOR ELEMENTS ASSESSMENT SUMMARY:

Overall Condition: Acceptable; Repairs Required. In assessing the various aspects of the interior elements of this home, conditions are noted where repairs are required. Assuming the noted conditions are repaired, the overall condition would be acceptable, with periodic monitoring and preventative maintenance activities performed.

Deficiencies Noted: In assessing the various aspects of the interior elements of this home, conditions are noted that are of a more concerning nature, affecting the ability of the interior components to meet all aspects of intended use and functionality. Correction of these deficiencies should be considered as a priority.

DEFICIENCY SUMMARY:

1

**LOCATION:** Laundry Room **SYSTEM:** Interior**CONDITION:** Clothes dryer vent ducting concerning (ribbed)

EXPLANATION: The dryer vent ducting is recommended to be metal (smooth rigid) and of a uniform diameter to the outside. Too much resistance from “ribbed” style ducting ruins efficiency by extending drying times. With enough resistance, the flow becomes so sluggish that the moisture in the air condenses on the pipes. This condensate attracts lint that sticks to the vent walls. Caked-on lint further impedes airflow and is a fire hazard. Extended run times are also hard on dryers, wearing them out more quickly. And finally, overworked dryers start blowing thermal fuses.

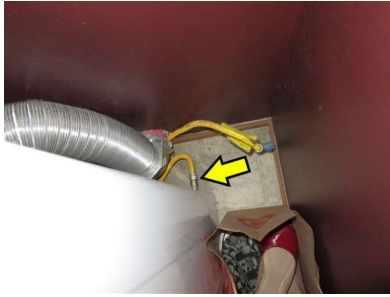
Many local jurisdictions limit the length of a solid-wall sheet metal vent to 14 ft., with only two 90° elbows beyond the one connecting the dryer. Each additional elbow will cost you 2 ft. of overall length. Every pipe-to-pipe joint must be sealed with metal-foil tape, and screws are prohibited.

Many local codes, however, allow up to 25 ft., with two elbows beyond the first. But in these cases, each additional elbow will cost you 8 ft. in length. Accordion-style venting should never be used. Just a few feet of accordion-style vent can add 10 minutes of drying time to a load of bath towels, so there's plenty of incentive to replace it with smooth rigid metal pipe.

IMPACT/CONSEQUENCES: The use of materials other than approved smooth metal dryer vent may create the possibility of a fire hazard and/or may shorten the useful life of this appliance. Seams if taped, should be taped with an approved taping material that can perform well with high temperatures. Non-conforming tape materials may pose a safety concern.

RECOMMENDED ACTION: Safety Concern | Replace

2



LOCATION: Laundry Room **SYSTEM:** Interior
CONDITION: Drip leg missing on gas connection. (Dryer)

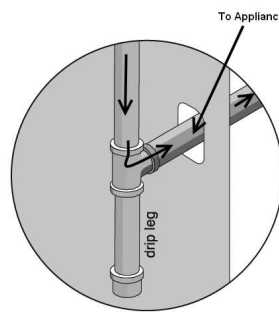
EXPLANATION: The drip leg "T" in the gas line to an appliance is not observed where expected or could not be located in the course of inspection. A drip leg should be installed to help catch contaminants in the gas line.

IMPACT/CONSEQUENCES: The drip leg catches condensation in the gas line before it can cause problems with the operation of the appliance. The absence of a drip leg for all gas appliances should be considered a safety issue requiring immediate remedy.

RECOMMENDED ACTION: Safety Concern | Install | Consult Specialist

Drip leg

the drip leg (or dirt pocket) serves as a collection area for sediment to reduce the chance of clogged gas valves or burners



3

LOCATION: Various locations throughout the home **SYSTEM:** Interior

CONDITION: Window unit maintenance recommendation

EXPLANATION: Over time window systems (latching hardware, hinges, channels, tracks, guides, wheels, sashes, and frames) may require periodic cleaning, lubrication, and tightening of the hinge and operating mechanism screws, when present, to prolong the life of the window system and make them easier to operate.

IMPACT/CONSEQUENCES: If periodic cleaning and lubrication is not performed the tracks, channels, hinges, operating mechanisms, latches, guides, and wheels may become restrictive and worn making the windows difficult to open and close resulting in undue stress on the mechanisms, potentially damaging seals of insulated glass, and damaging sashes. Periodic examination, cleaning, and lubricating the tracks, channels, guides, hardware, and wheels should be part of a regular maintenance routine.

RECOMMENDED ACTION: Clean | Perform Regular Maintenance

4

LOCATION: Kitchen **SYSTEM:** Interior

CONDITION: Microwave operation - **NOTIFICATION** (Whirlpool/Maytag)

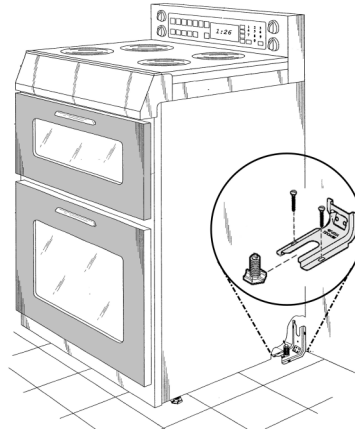
EXPLANATION: This is a notification specifically for Whirlpool and Maytag microwaves. Although the general operation of these microwaves may appear to perform properly, independent testing has shown that a notable percentage of these may have cold and hot spots. The mechanism that "stirs" the microwaves evenly throughout the interior cabinet apparently does not perform as intended causing high concentrations of microwaves in small areas. This may cause arcing and uneven performance such as areas of over heating or "cold spots" with no heating ability. Additional information regarding this condition is available on the internet.

NOTE: Newer models may not have this condition but because there is no information regarding this condition as it relates to this particular appliance it could not be verified.

IMPACT/CONSEQUENCES: The appliance operation may have not been fully evaluated due to the additional stated condition. It may not be possible at the time of the inspection to determine whether or not this appliance has this condition. The observed conditions may need to be evaluated by an Appliance Specialist.

RECOMMENDED ACTION: Recommend - Awareness of this condition

- 5 **LOCATION:** Kitchen **SYSTEM:** Interior
CONDITION: Anti-tip device is not installed or not installed correctly (Stove)
EXPLANATION: The appliance was observed not to have any anti-tip device installed or installed correctly to prevent injury from the stove tipping.
IMPACT/CONSEQUENCES: The appliance could potentially tip over onto someone or tip and spill hot items causing injury. These anti-tip devices can usually be found in the appliance department at most home improvement stores.
RECOMMENDED ACTION: Recommended Safety Upgrade



OBSERVATIONS & SUGGESTIONS:

Periodic inspection of your attic is suggested, to examine for evidence of water infiltration, as evidenced by water stains, rot, or mold. Examination after heavy rainstorms is suggested as the best opportunity to view current issues.

A review of your home should be conducted at least twice a year. Items to include in this review include: checking all doors and windows for safe operation and protection against forced entry; checking smoke, fire, and carbon monoxide detectors, and fire extinguishers; practicing routines for fire safety and emergency situations; checking stair and railings for safety; etc.

Pictures shown may be only a representative sample of all the related areas of concern.

PURPOSE

The primary purpose of the home's insulation system is to reduce heat loss in the winter and heat gain in the summer. This system is comprised of the insulation material which provides a thermal blanket, as well as other system elements that may include an air barrier, a vapor retarder, and ventilation to control the flow of air and moisture. The primary purpose of the home's ventilation systems are to remove excess heat and moisture from the home; the absence of adequate ventilation can cause detrimental effects to the home structure, its contents, and its occupants.

INSPECTION PROCESS

As documented by this report, the inspection of the insulation and ventilation systems includes examination of: the insulation and vapor retarders in unfinished spaces; the ventilation of attics and foundation areas; and the mechanical ventilation systems for controlling indoor air quality. Reported below are the descriptions of the insulation and vapor retarder systems in unfinished areas, including any reported absences of insulation in unfinished spaces at conditioned surfaces. The inspection process is such that the inspector is not required to disturb the insulation and vapor retarders. The inspector at his/her discretion is not required to enter confined spaces where such entry is in the opinion of the inspector not safe or could result in damage to property. The inspector may provide below an estimate of the thermal resistance value as a courtesy, and if provided, is expressed as an opinion; the determination of the actual thermal value(s) is outside the scope of a home inspection and would normally require independent testing. The composition of insulation may vary from that stated below, as in some cases more than one type of insulation may be installed but this may not be apparent without probing and sampling. The inspector is also not required to determine indoor air quality, as this is outside the scope of inspection.

ACCESS TO INSPECTED AREAS:

ATTIC HATCH LOCATION(S)	EXAMINATION METHOD	CRAWL SPACES
Hall Ceiling	Attic Examined From Ladder or Other Means at Attic Access	None Present or Visible

COMPONENT CHARACTERISTICS:

ATTIC INSULATION

Fiberglass - Loose

ATTIC EST. NOMINAL INSULATION VALUE [RSI]

R-49 (approx 14 inches)

ATTIC VAPOR RETARDER

Poly Sheet

ATTIC VENTILATION

Passive Roof Vent(s)
Soffit Vents

FOUNDATION WALL INSULATION

None Observed on Unfinished Walls

INSULATION: Insulation provide the thermal barrier for the home and is generally a light-weight material with properties that trap air in pockets in the insulating material. Entrapped air is an effective means of providing thermal insulation. Common materials include fiberglass, mineral wools, and cellulose. In older construction, other forms of insulations were used, including wood chip and vermiculite. Insulation comes in various forms, including loose-fill (generally blown into location) or batt form (cut and fit between structural members). Rigid foam materials may also be used in some specific applications; however these materials should be covered by drywall or other suitable noncombustible barrier as rigid foam insulation will support combustion and give off toxic fumes when burned.

AIR AND VAPOR BARRIER: The air and vapor barrier system, usually applied between the warm side of finished interior surfaces and the insulation, is intended to restrict the movement of air and moisture into the insulation. Air and moisture, if permitted to flow through the insulation, would result in degradation of thermal properties, could result in the formation of mold, and could result in rot in structural members of the home. In newer construction, the vapor barrier is generally applied in the form of polyethylene sheet.

VENTILATION, UNCONDITIONED AREAS: The primary purpose of ventilation in

**FOUNDATION WALL EST.
NOMINAL INSULATION VALUE
[RSI]**

N/A

**FOUNDATION WALL VAPOR
RETARDER**

N/A

CRAWL SPACE INSULATION

No Crawl Spaces Found

**INTERIOR VENTILATION
SYSTEMS**

Main Bathrm(s) Exhaust Fan
Upper Bath(s) Exhaust Fan
Ensuite Bath(s) Exhaust Fan
HRV/Air Exchange
System/Fan

EXTERIOR AIR MAKE-UP

Passive Supply/Furnace Area

unconditioned areas, such as attics and crawl spaces, is to allow the free entry of ambient outside air, to limit the accumulation of moisture that would otherwise be present in these areas. This moisture, if not removed, would ultimately dampen or saturate the insulation, rendering it ineffective, and could lead to mold formation and rot of wood elements.

INTERIOR VENTILATION: The primary purpose of interior ventilation systems, such as bathroom and kitchen fans, is to remove excess moisture and improve interior air quality. Although new homes are relatively well sealed, make-up air will invariably be introduced through various breaches in the building's envelope. Current ventilating practices include have a passive vent connected to the exterior and generally terminating in the furnace area, to provide air make-up both for the fuel-burning appliances and for forced interior ventilation. Heat recovery ventilators ("HRV") are often used to improve air quality by creating a mechanically assisted method of air exchange from the exterior to the interior. The HRV utilizes an air-to-air heat exchanger to limit the amount of heat lost to the exterior.

SEALING AND WEATHER-STRIPPING: Unintended air leakage must be avoided to reduce heating and cooling requirements. Caulking and weather-stripping at doors, windows, vents, and any penetrations through the building envelope is an essential home maintenance activity.

RESTRICTIONS:

At the time of inspection, the following restrictions applied to the examination of this system:

Attic Insulation and Ventilation: Attic design, full attic accessibility, insulation, storage, depth of insulation, concealed roof structure components, concealed condition of ceiling or floor joists, or other conditions restricting the ability for a full evaluation of structural components to be traversed

INSULATION AND VENTILATION SYSTEMS ASSESSMENT SUMMARY:

Overall Condition: Acceptable; Repairs Required and/or Upgrades Recommended. In assessing the various aspects of the insulation and ventilation elements of this home, conditions are noted where repairs or corrections are required. Assuming the noted conditions are repaired/corrected, the overall condition would be acceptable, with periodic monitoring and preventative maintenance activities performed.

Deficiencies Noted. In assessing the various aspects of the insulation and ventilation elements of this home, conditions that are more concerning are noted, that appear to be affecting the ability of the insulation and ventilation components to meet all aspects of intended use and functionality. Correction of these deficiencies should be considered as a priority.

DEFICIENCY SUMMARY:

LOCATION: Bathroom - Master, Upper **SYSTEM:** Insulation/Ventilation

CONDITION: Exhaust fan may not be providing adequate ventilation.

EXPLANATION: Bathrooms are one of the most likely places for organic growth to develop. Good ventilation can help to prevent this from happening. The exhaust fan should be able to remove adequate amounts of humid air to prevent mold or mildew growth or formation. Many professionals advise the use of exhaust fans that are rated at least 80 CFM and some ventilation professionals are even recommending 100 CFM fans. Additionally, a wall switch timer or a fan with a built in humidistat is recommended to allow for the fan to be operated for extended periods of time after showering or bathing to adequately dry the walls and ceilings.

The current exhaust fan may not be providing sufficient exhaust flow. Indications of this condition may be that the fan is; old, worn, undersized, or; may have installed in a poor location, may have been incorrectly installed, or the duct is dirty or clogged, or the ducting may be of a style or type (such as ribbed or accordion style) that does not allow for efficient exhausting.

IMPACT/CONSEQUENCES: Failure to correct this problem may affect air quality of the home, and may result in greater than intended indoor humidity which could result in organic growth development such as mold, mildew or fungus. A Specialist may be required to properly complete the necessary repairs.

RECOMMENDED ACTION: Recommended Upgrade | Consult Specialist



LOCATION: Exterior Rear **SYSTEM:** Insulation/Ventilation

CONDITION: Fresh air intake vent maintenance recommendation

EXPLANATION: Air intake openings should be checked regularly for any build up on the screens which may restrict flow.

IMPACT/CONSEQUENCES: When air vents are clogged they may not be able to perform as intended supplying fresh air for proper combustion, and proper indoor air management. Regular cleaning is recommended

RECOMMENDED ACTION: Recommended Maintenance

OBSERVATIONS & SUGGESTIONS:

Periodic inspection of your attic is suggested, to examine for evidence of water infiltration, as evidenced by water stains, rot, or mold. Examination after heavy rainstorms is suggested as the best opportunity to view current issues.

Regular home maintenance activities should include a review of the home for signs of moisture and mold as the presence of organic growth may be an indication of poor ventilation and/or high humidity levels. We recommend reviewing all rooms and areas at least twice a year.

Be conscious of air quality: molds need moisture to grow. Any signs of water leaks to the interior should be immediately addressed. Monitor indoor humidity; keeping relative humidity below 30% is suggested.

To ensure moisture from dryer exhaust is safely vented to the exterior, clean your dryer filter every time the dryer is used. Check the dryer duct and exterior exhaust cover at least twice a year for blockages and lint build-up.

Periodically check your exterior fresh air intake vent for blockage. Dust and debris should be removed to assure the free flow of air into the home's interior to replace air being exhausted by the range hood, bath exhaust fan(s), dryer, water heater, and furnace.

Pictures shown may only be a representative sample of all the related areas of concern.

PURPOSE

The primary function of the heating and cooling systems of the home is to provide an indoor environment that is comfortable in terms of temperature. The heating system in your home converts energy from one source (such as natural gas, propane, oil, wood, solar, or electricity) into heat. Heating may be from either or both of a forced air system (characterized by heat distribution through heating ducts) or a radiant heating system (for example electric baseboards heaters or water/steam radiators). Air conditioning, when used, removes heat and moisture from the home, and generally uses electricity as the source of energy for the cooling process. The most common form of air conditioning is with an air conditioning unit attached to the central duct system. In centrally controlled ducted systems, a thermostat generally located on the main floor is used to set and control the heating and cooling conditions.

INSPECTION PROCESS

As documented by this report, the inspection of the heating and cooling systems includes examination of installed heating equipment and installed central and through-wall cooling equipment. The inspector will open readily-opened access panels provided by the manufacturer for typical homeowner maintenance. Ambient conditions permitting, the inspector will operate the system(s) using normal operating controls. Reported below are the characteristics of the heating and cooling systems, including the energy source(s) as well as the distinguishing characteristics of the heating and cooling methods. Note that the inspection does not normally include and report on: aspects of the heating system that are not readily accessible, such as the heat exchanger and the interiors of chimneys and flues; attached or supplemental equipment to the heating and/or cooling systems, such as humidifiers, dehumidifiers, electronic air filters, etc.; and solar space heating systems. The nature of the inspection is primarily visual, and is such that this examination is not intended to determine the adequacy of the system as a whole or the heating or cooling distribution balance. The services of a heating and air conditioning specialist is normally required for these determinations and adjustments. The services of an air quality specialist should be considered where either air quality or excessive moisture conditions are encountered and cannot be resolved by the home owner.

FIREPLACES [When Installed]

Where fireplaces and solid fuel-burning appliances are installed, the inspection includes examination of the system components, including the vent systems, flues, and chimneys. Reported below are the characteristics of the installed fireplaces and fuel-burning appliances, and chimneys. Note that the inspection does not normally include the examination of: the interiors of flues or chimneys; fire screens and doors; seals and gaskets; automatic fuel feed devices; mantles and fireplace surrounds; the combustion make-up air devices; and heat distribution assists whether fan assisted or gravity controlled. The inspector will not normally ignite or extinguish fires, determine draft characteristics, or move fireplace inserts or stoves or fireplace contents. The services of a certified technician is normally required to assess, correct, or make recommendations to wood-burning fireplaces and stoves.

COMPONENT CHARACTERISTICS:

HEATING SYSTEM TYPE[S]

Central Forced Air

FUEL TYPE[S]

Natural Gas

GAS METER OR FUEL FILLER

FURNACE: The purpose of your furnace is to serve as both the heat source and the control for the distribution of conditioned air throughout the house. In forced air systems, the most common fuel sources are natural gas, propane, oil, and electricity. With the exception of electric furnaces, which use electric heating elements, furnaces have four principle components, being the burner, the heat exchanger, the filter, and the blower. Homeowner maintenance activities include examining the furnace about once a month to check the

LOCATION[S]

Exterior Left Wall

COOLING SYSTEM TYPE[S]

Air Cooled, Central

COOLING SYSTEM ENERGY SOURCE[S]

Electricity

SYSTEM ASSOCIATED EQUIPMENT

Humidifier

Heat Recovery Ventilator (HRV)/Air Exchange System (AES)

FIREPLACES

None Installed

FIREPLACE/STOVE STYLE

Not Applicable

FIREPLACE/STOVE VENTING

Not Applicable

condition of the filter, replacing it as necessary; on an annual basis, it is recommended that the homeowner arrange an inspection and maintenance visit to be conducted by a heating system specialist. Higher efficiency furnaces use a condensing unit with water as a byproduct; any indication of water leakage in or around the furnace should be immediately reported to and repaired by a heating specialist.

RADIANT AND SPACE HEATING SYSTEMS: Radiant or space heating systems include electric baseboard heating, water or steam radiators, or wood or gas burning stoves and fireplaces. Radiant systems may also include heat radiating elements installed in the walls, ceilings, and/or floors. Control is usually provided as thermostats at the room or area of the radiant elements.

THERMOSTAT: The purpose of the thermostat is to control the operation of the heating system and/or the central air conditioning system. For central forced air systems, the thermostat is usually located in a central location on the main floor; for radiant or space systems, the temperature control may be as a thermostat in the area of, or a part of, the heating component.

AIR INTAKE FOR COMBUSTION: The purpose of an air intake for combustion is to ensure an adequate supply of air is provided to fuel-burning appliances, such as fuel-burning furnaces, stoves or fireplaces, and water heaters. The absence of sufficient air supply can result in incomplete combustion and improper drafting, which could affect the safety of the home's occupants by introducing carbon monoxide into the home. An annual inspection of the heating system by a heating specialist is recommended to ensure the air intake and exhaust systems are performing their intended functions.

FILTER: The purpose of the filter is to remove particles from the air circulating through the furnace and ducting system of central forced air systems. Passive filtering is the most common type, using either disposable and reusable filters; the frequency of either replacing or cleaning filters varies by household but monthly checks to the condition of the filter is recommended. Air filtration may also include electronic filters and air cleaners; the frequency and form of cleaning should be in accordance with the manufacturer's instructions.

EXHAUST: The purpose of the exhaust system is to vent byproducts of combustion, which if not removed from the house, would present hazards to the occupants of the home. Higher efficiency gas furnaces generally use power vented systems to vent combustion gases; lower efficiency systems generally use convection drafting to draw combustion gases up a chimney. Examples of venting systems include metal or masonry chimneys, and plastic venting pipes. An annual inspection by a heating specialist should include a review of the satisfactory performance of the venting system.

BLOWER: The blower unit, located in the furnace of central heating systems, is used to circulate the air through the furnace and deliver this air to the ducting system.

DUCTWORK AND REGISTERS: The primary purpose of the air ducting system of forced air systems is to direct and deliver conditioned air to the various rooms and areas of the home. The three primary components of this system are: the supply ducts for delivering air to registers throughout the house; air return ducts to complete a circulation path that brings air back to the furnace, and registers that control the flow of air at room or area locations. Many duct systems also have dampers installed in the ducts to assist in balancing the flow of air throughout the system. Maintenance usually involves periodic cleaning of registers; a thorough duct cleaning is suggested every 3-5 years to remove dust and debris that collects in this system, and to remove dust and contaminants that may affect occupants with sensitivities to dust and allergens.

AIR CONDITIONER: The purpose of the air conditioner, when installed, is to remove heat from the interior of the home and deliver this heat to the exterior. A byproduct of the cooling process is water, thus the air conditioning system, when operating, serves to reduce the humidity inside the home. The most common form of air conditioning uses the forced air

central heating system and ductwork for the distribution of the conditioned air. The central air conditioning system has five principle components: the evaporator system, generally located above the furnace; a condensing/ compressor unit, located outside the house; refrigerant lines for circulating the coolant between the evaporator and condensing sections; the refrigerant which serves as the agent for heat transfer; and a condensate drainage system for handling the water collected from the cooling process. The home owner should periodically check the exterior (condensing) unit to ensure there are no obstructions to the air flow through the unit and interior (evaporator) unit for water presence; as well, an annual inspection and maintenance visit by a heating and cooling specialist is recommended.

FIREPLACES AND STOVES: Fireplaces and stoves are generally installed in homes for aesthetic reasons and ambiance, although these may also serve to provide heating. Proper design, installation, and maintenance is essential. Wood stoves and fireplaces require particular attention, due to the build up of creosote in chimneys, which can become a fire hazard. Care in the use and maintenance of fuel-burning appliances should be regarded as the primary considerations for safety.

FURNACE / PRIMARY HEATING EQUIPMENT

MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	ESTIMATED AGE	CAPACITY
Trane	tux080c942c3	x384h697g	approx 20 years	80,000 BTU/Hr

EFFICIENCY	FILTER LOCATION	FRESH AIR SUPPLY	EXHAUST
High Efficiency	Filter Chamber Out Side Of	Exterior Air Supply with Duct to	Power Vented

AIR CONDITIONING EQUIPMENT

MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	ESTIMATED AGE	CAPACITY
Trane	ttb030c100a2	z373xsl5f	approx 20 years	2.5 Ton

RESTRICTIONS:

At the time of inspection, the following restrictions applied to the examination of this system:

Heating System:

System Observed Operational

Cooling System:

System Off - Winter Seasonal

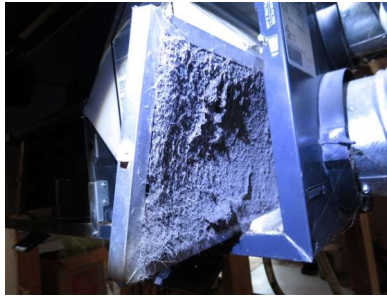
Not Operated - Ambient Temp. Below 62 F

HEATING AND COOLING SYSTEMS ASSESSMENT SUMMARY:

Overall Condition: Acceptable; Monitoring, Repairs Required, and/or Upgrades Recommended. In assessing the various aspects of the heating/cooling systems of this home, conditions are noted where repairs are required. Assuming the noted conditions are repaired, the overall condition would be acceptable, with periodic monitoring and preventative maintenance activities performed.

Deficiencies or Concerns Noted. In assessing the various aspects of the heating/cooling systems of this home, conditions that are questionable or more concerning are noted, that appear to affect the ability of the heating/cooling components to meet all aspects of intended use and functionality. Correction of these deficiencies should be considered as a priority.

DEFICIENCY SUMMARY:



LOCATION: HRV (Heat Recovery Ventilator/ Air Exchanger) **SYSTEM:** Heating/Cooling
CONDITION: The HRV / Air exchange unit and filters need maintenance

EXPLANATION: The HRV/Air Exchanger filters were observed to be dirty or clogged such that proper performance of this appliance may not be possible. The HRV keeps the home supplied with a steady flow of fresh outdoor air. As stale, warm air is expelled, the heat recovery core warms the incoming fresh, colder air before it is distributed throughout the home. The result is a constant supply of fresh air, no unpleasant drafts and greater home comfort. In addition to heat recovery and improved air quality, the HRV provides necessary ventilation while controlling excess humidity. Periodic maintenance of the HRV is required to prevent the filters and core from becoming clogged.

IMPACT/CONSEQUENCES: Dirty filters and core will restrict the air flow through the HRV, which will reduce the efficiency of the unit. Blocked air flow can affect the life expectancy of the unit, may prevent proper defrosting of the unit when in operation, and may affect proper balance of air flow. The unit should be maintained in accordance with the manufacturer's instructions.

Positive air pressure

1. Pushes hot and/or humid air into walls and insulation; condensation can lead to mold, mildew and rot.
2. Heat loss

Negative air pressure

1. Cold air infiltrates house
2. May increase energy costs
3. May cause combustion appliances to backdraft

The exterior HRV air intake openings should be checked regularly for any build up on the screens which may restrict flow. Professional calibration of this appliance and regular cleaning of the interior and exterior HRV filter(s) is recommended.

RECOMMENDED ACTION: Replace; Clean If Reusable Type



LOCATION: Exterior Rear **SYSTEM:** Heating/Cooling

CONDITION: Condenser unit fins or screen clogged or becoming clogged

EXPLANATION: Dirty fins or screens are noted at the condenser (outside) unit of the air conditioner. This condition may hinder proper operation of this appliance and may result in premature failure.

IMPACT/CONSEQUENCES: Air flow through the coil section of the outdoor unit is reduced where coolant fins or screens are clogged. The effect will be a reduction in efficiency of the unit, with the degree of effect proportional to the size of the area of blockage. Check and clean periodically carefully with a medium stream of water. Never use a pressure washer.

RECOMMENDED ACTION: Recommended Maintenance

LOCATION: Furnace, Air Conditioner, Ductwork, HRV, Air Exchanger **SYSTEM:** Heating/Cooling

CONDITION: Indications of neglected maintenance of the HVAC system

EXPLANATION: One or more indications of maintenance neglect are observed at the furnace, air conditioner, filters, humidifier, blower unit, or HRV (air exchanger). A thorough tune-up of the entire HVAC system (furnace, air conditioner, HRV, blower unit, Air Exchange system, etc) by a reputable HVAC company is recommended to clean, adjust, lubricate, calibrate, change filters, clean duct work, and test for proper operation and performance.

NOTE: When this condition is observed it may not be possible to fully evaluate the proper operation and performance of this system until it is fully serviced (tuned up, filters changed,

HRV or air exchanger cleaned, exterior vents cleaned, AC coil or condenser screens cleaned).

IMPACT/CONSEQUENCES: Thorough tune-ups should be performed annually as these can assure the efficiency of the furnace and can have a positive impact the life expectancy of key components in the furnace, such as the heat exchanger and blower motor, both of which can have significant cost impact should they fail.

RECOMMENDED ACTION: Recommend Servicing or Maintenance

LOCATION: Furnace Filter **SYSTEM:** Heating/Cooling

CONDITION: Air filter is excessively dirty

EXPLANATION: The air filter is observed to be excessively dirty such that the circulating air flow is highly restricted.

IMPACT/CONSEQUENCES: A dirty filter will restrict the air flow through the furnace, which will reduce the efficiency of the furnace. Longer term impacts may include reduced life expectancy of the furnace, overheating of the circulating blower motor, and overheating of the heat exchanger. The air filter should be checked on a regular basis (monthly is recommended) and changed or cleaned when dirty.

RECOMMENDED ACTION: Replace; Clean If Reusable Type

LOCATION: Furnace **SYSTEM:** Heating/Cooling

CONDITION: The future performance of the furnace is suspect and not predictable

EXPLANATION: Aspects of our review of the heating system have raised concerns regarding the furnace's current and future ability to provide the intended heating. Conditions as observed may include such factors as age, physical condition, wear, damage, observation of maintenance neglect, and rust/corrosion observed at various components in the furnace.

NOTE: Furnaces that are 15 years and older are more suspect to future performance issues and failure.

IMPACT/CONSEQUENCES: The current condition of the furnace is such that the functionality of the unit to provide adequate heating in the future is suspect. As a minimum, it is suggested that the furnace be checked and tested more intensively by a reputable heating Specialist to better evaluate its current condition and future capability to provide heating. Alternatively, consideration should be given to provide for future replacement should the furnace fail to functionally and economically meet the heating needs for this home.

RECOMMENDED ACTION: Review | Consult HVAC Specialist

LOCATION: Air Conditioner **SYSTEM:** Heating/Cooling

CONDITION: The future performance of the air conditioning system is suspect and not predictable

EXPLANATION: Aspects of our review of the air conditioning system have raised concerns regarding the system's current and future ability to provide the intended cooling. Conditions as observed may include such factors as age, physical condition, wear, damage, observation of maintenance neglect, and rust/corrosion observed at various components in the condenser unit.

NOTE: Air conditioners that are 15 years and older are more suspect to future performance issues and failure.

IMPACT/CONSEQUENCES: The current condition of the condenser unit is such that the functionality of it to provide adequate cooling in the future is suspect. As a minimum, it is suggested that the air conditioning system be checked and tested by a HVAC Specialist to better evaluate its current condition and future capability to provide adequate cooling. Alternatively, consideration should be given to provide for future replacement should the air conditioning system fail to functionally and economically meet the cooling needs for this home.

RECOMMENDED ACTION: Review



LOCATION: Exterior Rear **SYSTEM:** Heating/Cooling
CONDITION: The HRV / Air exchange exterior vent maintenance recommendation

EXPLANATION: Regular maintenance of the exterior vent screens is recommended to allow for the free flow of incoming air.

IMPACT/CONSEQUENCES: Clogged exterior vents will negatively affect the performance of the HRV unit. These should be maintained in accordance with the manufacturer's instructions. Monitoring and cleaning should be part of a regular maintenance schedule.

RECOMMENDED ACTION: Recommended Maintenance | Consult Specialist

LOCATION: Furnace **SYSTEM:** Heating/Cooling

CONDITION: Drip leg non-conforming - Furnace

EXPLANATION: The function of the drip leg is to catch condensation or sediment in the gas line. The observed drip leg does not appear to meet industry requirements for a gas appliance.

IMPACT/CONSEQUENCES: The absence of a properly installed drip leg may result in poor performance of the furnace. The absence of a drip leg at the furnace should be considered a safety issue requiring immediate remedy. A Specialist may be required to perform the necessary action.

RECOMMENDED ACTION: Safety Concern | Repair | Consult Specialist



OBSERVATIONS & SUGGESTIONS:

Without knowing or being able to verify the quality and complete history of the heating system maintenance, I recommend a full "safety and performance" evaluation by a heating Specialist who perform a deeper, more technical evaluation than is generally possible by a home inspector. They can usually "Certify" that the heating and cooling systems is operating safely and efficiently. This will give you a "baseline" from which to judge future issues or concerns, and peace of mind that your furnace is operating safely and efficiently.

Screens or filters such as; furnace filters, HRV/Air Exchanger (both exterior intake vents and internal filters), Blower Units, and fresh air intake (make up air) vents, that are part of your heating/cooling system should be checked periodically, and cleaned or replaced when required.

Your home contains fuel-burning appliances. For your safety, carbon monoxide detector(s) should be installed, and if installed, periodically tested. Monthly testing of these detectors is recommended.

Pictures shown may be only a representative sample of all the related areas of concern.

PURPOSE

The primary purpose of the plumbing system is to provide a supply of water for domestic usage for the home's occupants, and to manage the safe discharge of waste water. Water supply may be from a well located on this property if the home has a private supply, or from the municipal water mains running beneath streets and roadways if the water is provided by the municipality. Drainage of wastewater is to either a septic system for private systems or to the municipal sewer system where this system is provided by the municipality.

INSPECTION PROCESS

As documented by this report, the inspection of the plumbing system includes the examination of: the interior supply and distribution systems including all fixtures and faucets; the drain, waste and vent systems including traps, piping, and piping support; the water heating equipment including the associated vent systems, flues and chimneys; the fuel storage and fuel distribution systems; and the drainage sumps, sump pumps, and related piping. Reported below are the characteristics of the plumbing elements examined, including a description of the supply, drain, waste, and vent piping materials, the water heating equipment including its energy source, and the location of the main water and main fuel shut-off valves, as well as other appropriate information noted during the course of inspection.

Note that the plumbing systems inspection does not normally include and report on: the clothes washing machine connections; the interiors of flues or chimneys that are not readily accessible; wells, well pumps, or water storage related equipment; spas; swimming pools; water conditioning systems; solar water heating systems; fire and lawn sprinkler systems; water supply quantity and quality; and private waste disposal systems. The inspection process does not normally involve the operation of safety valves or shut-off valves.

Also note that there may exist leaks in the plumbing system that are not apparent at the time of inspection, or which may only become apparent under specific plumbing fixture/component operating conditions. For example, if a minor leak exists below a fixture, the leak may only become apparent when the fixture is frequently used, in which case the limited operation of the fixture would not have detected this condition during the inspection process.

COMPONENT CHARACTERISTICS:

WATER SUPPLY SERVICE TYPE

Public

WATER METER PICK-UP

Wireless by Meter

WATER METER LOCATION

Utility Room

WATER SHUT-OFF VALVE LOCATION

Utility Room

WATER SUPPLY PIPE MATERIAL

Copper

WATER DISTRIBUTION PIPING MATERIALS

WATER METER: Municipal water supplies are generally metered to permit billing based on water consumption, and in turn this consumption value is often used to calculate charges for sanitary drainage. If in doubt, check with your municipality for the specific methods of assessing usage and billing for water consumption and drainage. Water meters are generally located near the interior point of entry of the water supply to the residence. The water meter is typically the property of the water utility agency, and should not be tampered with, or enclosed to prevent access.

SUPPLY SHUT-OFF VALVE: The water supply shut-off valve is generally located near the point of entry of the water supply pipe. Some homes on public water supply systems have two shut-off valves, located at on opposite sides of the water meter, to assist the water utility agency in maintaining or changing the meter. The purpose of the primary supply shut-off valve is to turn off the water supply in the event of emergencies and for maintenance. Awareness of the location of this valve is important, and all members of the household should know where this valve is located and how to operate it in the event of an emergency. Clear access to the valve should be maintained. Valves may seize to the point that they are difficult or impossible to operate; normal recommended maintenance is to operate the valve by fully closing and opening the valve at least twice per year.

WATER METER PICK-UP: The water meter pick-up is an externally located device that

Copper

HOT WATER HEATER SYSTEM TYPE

Hot water tank

HOT WATER HEATER ENERGY SOURCE

Natural Gas

HOT WATER HEATER ENERGY SOURCE SHUT-OFF

Nearby Valve

HOT WATER HEATER CAPACITY

50 Gallon

HOT WATER HEATER VENTING

Power Vent, Through-Wall/Roof

FACILITY PROVISIONS

Kitchen
Main Bathroom(s)
Exterior Faucet(s)
Upper Bathroom(s)
Laundry Taps, Tub, Drain

SANITARY AND STORM DRAINAGE CONNECTIONS

Public Sanitary Drain

DRAINAGE & VENTING SYSTEM PIPING MATERIALS

Plastic

DRAINAGE PROVISIONS

Floor Drain
Sump Pit & Pump

permits a meter reading to be taken for the purpose of assessing water and drainage charges. This device should not be enclosed, relocated or altered without permission from the water utility agency.

WATER SUPPLY PIPING: The materials used for water supply for public systems is typically copper. Private systems where water is supplied from a well typically use plastic piping. Care should be taken to prevent damaging this pipe, particularly to the point of the main shut-off valve, as costly damage and repairs could result from rupturing the piping.

DISTRIBUTION PIPING: The water distribution system supplies water from the supply source to the various plumbing fixtures. Separate supply piping is used for hot and cold water distribution, with the hot water supply being provided by heating at a hot water heater. Common piping materials include copper and plastic.

WATER HEATER: The water heater provides a supply of heated water for domestic use. The water heater should be checked periodically for signs of leaks; water below the tank or under the discharge pipe should be investigated by a heating or plumbing specialist, or if rented, the appropriate utility specialist

SANITARY DRAINAGE SYSTEM: The sanitary drainage system collects waste water from all the plumbing fixtures for discharge to either the public sanitary sewage system, or to the septic system for private sanitary systems. The drainage system has a number of clean-out access points on the horizontal runs, usually located in the basement, to permit pipe examination and for blockage removal. A primary clean-out is generally located near the wall under- or through-which the main drainage line exits the home. Clean-outs should be sealed and should not be covered over to make future access difficult.

STORM DRAINAGE SYSTEM: The storm drainage system provides for collecting and discharging exterior runoff water that would otherwise collect along the foundation walls and footings, to reduce the possibility of water infiltration and soils destabilization at these structural elements. This system typically includes a drainage pipe at the footing level and fully encircles the home's perimeter, and may also collect storm water from window wells when installed. Discharge is through a connection leading into the home's basement. In homes connected to public sewer systems, a pipe leads from the house to the public sewer with a clean-out plug (for pipe examination access) in the basement and a back-flow preventer (also called a "back-water valve") to prevent reverse storm water flow from the public system. Homes not connected to a storm system usually have the drainage system water collecting into a sump pit in the basement, with a sump pump which when activated drains the pit and discharges the water to an exterior location at a suitable distance from the home.

DRAINAGE AND VENTING PIPES: The sanitary drainage system relies on gravity for the flow of waste water from the various fixtures to the point of discharge from the home. Water traps are located below each fixture which provide sealing against sewer gases entering the home. To facilitate the flow of water, the drainage system requires additional piping for venting which allows the free flow of air in the system; the absence of venting would result in a suction action at the water traps of the various fixtures when one fixture is drained, and could result in the loss of the water seal, as well as causing the other fixtures to "gurgle". Plastic piping is currently the most common material type installed, although copper may also be used.

BASEMENT DRAINAGE SYSTEM: As the basement is the lowest point in the home and often located below grade level, a drainage system is required to collect water should the basement become flooded. In homes connected to a public sewage system, the floor drain is generally connected to the sanitary drainage system. A water trap is located below the drain to prevent sewer gases entering the home. The trap should be checked periodically to verify the presence of water. A "trap primer" is often provided for the purpose of flushing and filling this drain, and is either a separate tap or a line leading off the laundry taps. In homes with high efficiency furnaces and/or central air conditioners, water produced from

these components is often collected into a condensate drain, which in turn drains to the floor drain, and assists in maintaining water in the floor drain trap. In homes not connected to a public drainage system, a sump pit is required to collect basement flood water, with a sump pump to expel the water to the home's exterior.

EXTERIOR FAUCETS: To provide for water uses at the exterior of the home, outside faucets (also known as "hosebibs") are typically provided at the front (sometimes in the garage) and rear of the home. The most commonly used type of faucets used are of the "frost-free" style that are designed to prevent frozen water from breaking the supply pipe during cold winter conditions. Most homes have an interior shut-off valve for each faucet, which permits turning off the water supply during the winter, and these shut-offs should contain a drain plug to permit draining all water in the pipe leading from the shut-off valve to the faucet. It is recommended that the exterior faucets be turned off at the shut-off valves and the pipes drained prior to the arrival of winter.

RESTRICTIONS:

At the time of inspection, the following restrictions applied to the examination of this system:

- Concealed pipes not inspected
- Water shut-off valves not operated
- Tub & basin overflows not tested

PLUMBING SYSTEM ASSESSMENT SUMMARY:

Overall Condition: Acceptable; Repairs Required, Monitoring or Upgrades Recommended. In assessing the various aspects of the plumbing system of this home, conditions are noted where repairs are required. Assuming the noted conditions are repaired, the overall condition would be acceptable, with periodic monitoring and preventative maintenance activities performed.

Deficiencies Noted. In assessing the various aspects of the plumbing system of this home, conditions are noted that are more concerning and appear to affect the ability of the plumbing components to meet all aspects of intended use and functionality. Correction of these deficiencies should be considered as a priority.

Safety and/or Health Concerns Noted. In assessing the various aspects of the plumbing features of this home, conditions are noted that may affect the health and safety of the home's occupants. Correction of these deficiencies should be considered a priority.

DEFICIENCY SUMMARY:



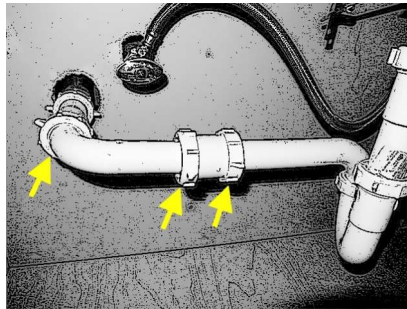
LOCATION: Kitchen **SYSTEM:** Plumbing

CONDITION: Drain pipe configuration non-conforming (**multiple slip joints**)

EXPLANATION: Drainage pipe components are missing at slip joints or too many slip joints have been installed on the horizontal section between the trap and vent pipe junction. Generally, one slip joint is permitted from the trap to the vent pipe. Proper installation of the drain piping and traps is necessary for proper drainage, to prevent leaks, safety, and health.

IMPACT/CONSEQUENCES: Incomplete, missing or improper installation of the drainage piping or traps may result in sewer gases entering the home, leaking causing unsanitary conditions and damage, or poor performance or function of the drain system. Immediate attention is recommended.

RECOMMENDED ACTION: Health Concern | Review | Repair | Consult Specialist



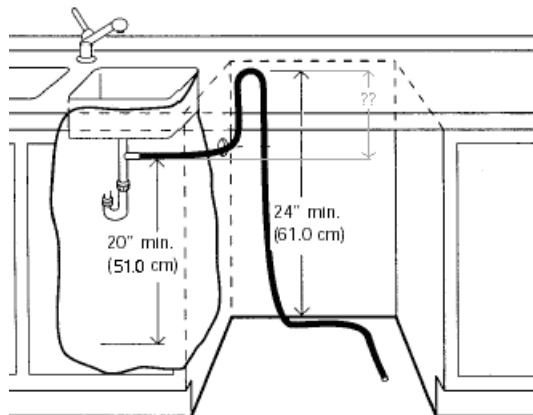
LOCATION: Kitchen **SYSTEM:** Plumbing

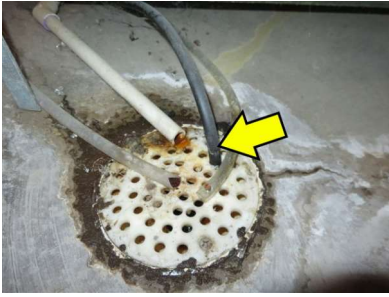
CONDITION: Drain pipe configuration or connection from dishwasher non-conforming

EXPLANATION: The drain pipe from the dishwasher has been installed in a manner that does not meet current standards for this type of plumbing connection. Generally, the drainage pipe should be looped and attached so the top of the loop is as high as possible to the underside of the countertop. Ideally, the loop should be at least half way up the depth of the sink. Non-conforming configurations may include connections without the use of a trap, drain piping material, drain connections, slope, or clamps.

IMPACT/CONSEQUENCES: This is a safety and sanitary issue. If the kitchen drain backed up, the "greywater" could easily flow back into the dishwasher if there was no high loop to provide backflow resistance.

RECOMMENDED ACTION: Health Concern | Replace, Repair, or Adjust



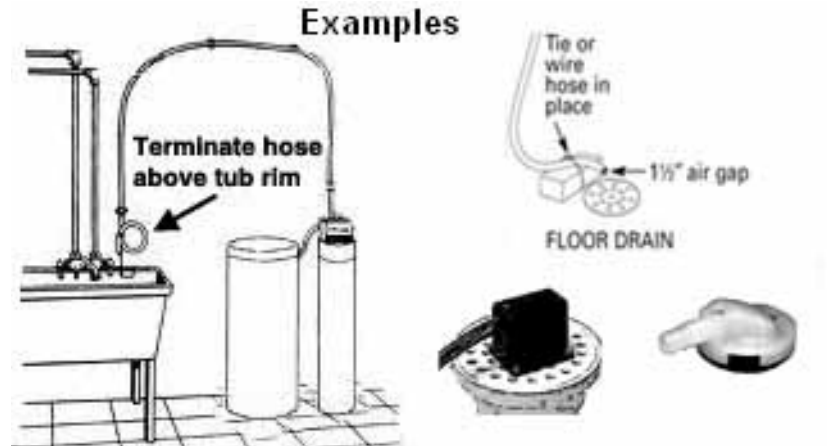


LOCATION: Water Conditioner (softener), Floor Drain **SYSTEM:** Plumbing
CONDITION: Drainage configuration is potential health concern (cross-contamination)

EXPLANATION: The configuration of the drainage piping from the water conditioner allows for the possibility of "cross-contamination" of potable water and gray (waste, contaminated, or unsafe) water. A cross-connection is an unprotected actual or potential connection between a potable water system used to supply water for drinking purposes and any source or system containing unapproved water or a substance that is not or cannot be approved as safe, wholesome, and potable. Although many manufacturers are installing built-in check valves in water softeners, it is important to be aware of this possibility since the presence of a check valve can not usually be verified. The end of a drain, hose, or pipe from a potable water source should not terminate below the rim of a sink, drain, sump pump, waste lift system, or tub. Additionally, there should be a minimum of 1½ inches of separation of the potable drainage piping to a drain grate or floor.

IMPACT/CONSEQUENCES: This drainage configuration is a potential risk to health. A plumber may be required to investigate and implement corrective rework to assure proper installation of the drainage system and components to prevent backflow and contamination of the potable water system.

RECOMMENDED ACTION: Health Concern | Repair | Consult Specialist





LOCATION: Bathroom - Master **SYSTEM:** Plumbing

CONDITION: Caulking is incomplete at bathtub/shower spout, taps, or wall penetrations

EXPLANATION: The faucet spout, taps, handles, or other wall penetrations are observed to have incomplete or open caulking. Caulking is required to provide an effective barrier against water penetration.

IMPACT/CONSEQUENCES: Caulking is a preventative action to keep water from seeping into walls, and causing damage associated with leaks. Failure to provide effective sealing can result in damage and costly repairs.

RECOMMENDED ACTION: Repair





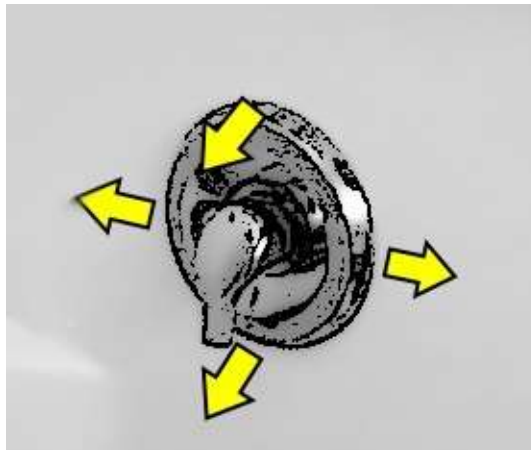
LOCATION: Bathroom - Master **SYSTEM:** Plumbing

CONDITION: Shower tap installation concerning (loose)

EXPLANATION: The tap is observed to be installed in such a manner that when pulled or turned to dispense water the entire tap (handle) mechanism has excessive movement, or is not properly secured to prevent it from sliding side to side, pulling out, or moving away from the shower enclosure wall.

IMPACT/CONSEQUENCES: The faucet should be installed correctly so it may be used as intended and it can remain sealed to prevent water infiltration behind the faucet, and to prevent possible broken solder joints or connections.

RECOMMENDED ACTION: Repair | Consult Specialist



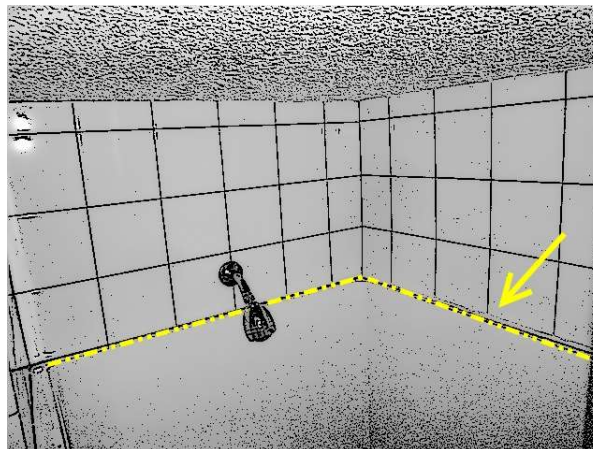
LOCATION: Bathroom - Master **SYSTEM:** Plumbing

CONDITION: **Shower enclosure top edge** requires effective sealing.

EXPLANATION: The shower enclosure top edge caulk requires maintenance or is observed to have unsealed areas (gaps, cracks, openings, etc.) along the top edge of the material (tile, plastic, fiberglass, etc.) that may permit infiltration behind the enclosure.

IMPACT/CONSEQUENCES: These open areas will likely compromise the effectiveness of the enclosure in preventing moisture from seeping into walls and causing damage associated with infiltration. If moisture gets behind the surround it may result in organic growth (mold, mildew, fungus) in the lower open seams, under the lower caulk seams, or behind the surround. Failure to provide effective repairs can result in organic growth, water damage, and costly repairs to the wall, floor, or areas below the shower enclosure.

RECOMMENDED ACTION: Repair | Consult Specialist





LOCATION: Bathroom - Master, Upper

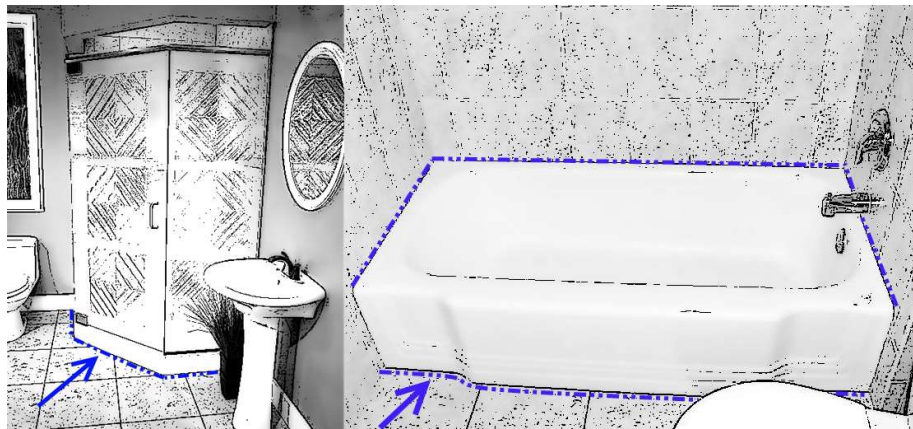
SYSTEM: Plumbing

CONDITION: Caulking is incomplete or open at bathtub edges, shower/bathtub and floor junction, or shower/bathtub wall junction inside and outside the plane of the shower or tub

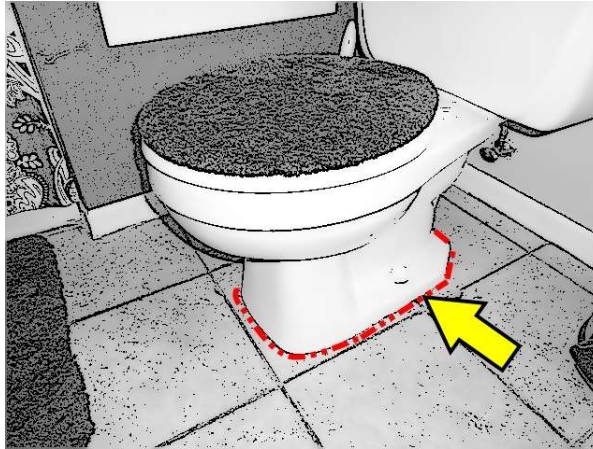
EXPLANATION: Caulking is required to prevent water penetration at junctions between the shower, bathtub, floor, adjacent trim, and walls. Caulking is observed to be inadequate to meet the intended requirements for sealing against water leaks at the bathtub or shower floor and wall junctions.

IMPACT/CONSEQUENCES: Caulking is a preventative action to keep water from seeping into walls and floors, and causing damage associated with leaks. Failure to provide effective sealing can result in damage and costly repairs. I recommend an application of caulk where currently required to prevent infiltration. I also advise monitoring these areas as over time the caulk may dry, shrink, and crack requiring a reapplication of the caulk.

RECOMMENDED ACTION: Repair | Maintain as required to prevent infiltration | Consult Specialist



LOCATION: Bathroom - Master, Upper **SYSTEM:** Plumbing
CONDITION: **Caulking between toilet and floor** is deteriorated, missing, or incomplete.
EXPLANATION: Seal is missing between toilet and floor to prevent water intrusion.
IMPACT/CONSEQUENCES: Caulking should be installed to prevent water intrusion between toilet and floor.
RECOMMENDED ACTION: Repair



LOCATION: Bathroom - Upper **SYSTEM:** Plumbing
CONDITION: **Manufactured solid-surface** countertop (integrated basin) has cracks at the drain
EXPLANATION: Manufactured solid-surface countertops may develop stress cracks at or near the drain connection if the drain connections were not made in accordance with the manufacturer's instructions. Physical impacts can also cause chips and cracks.
IMPACT/CONSEQUENCES: Cracks in the surface of the bowl will ultimately result in leaks and water damage. The recommended action is to replace the sink.
RECOMMENDED ACTION: Monitor for Leaks | Replace

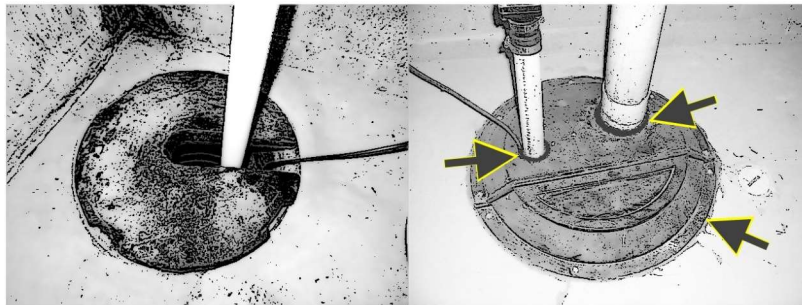
LOCATION: Sump Pump Basket Cover **SYSTEM:** Plumbing

CONDITION: **Sump pump basket/cover and/or discharge pipe opening is not sealed - Recommendation**

EXPLANATION: The sump pump basket, cover, and/or discharge pipe or power cord is not sealed at the basket/cover intersection and/or at the opening(s) or penetrations where the discharge pipe passes through the cover.

IMPACT/CONSEQUENCES: Since 2009, on new construction sump pump covers and any piping or power cords penetrating the cover are generally required to be sealed on all sump pump baskets. Where passive radon system vent pipes were also installed in the sump pump basket, those pipes were also required to be sealed at the area of penetration of the cover. Since we now know this can be a concern I recommend sealing the sump pump basket cover. An improperly sealed cover may not allow the radon system to operate as intended and may permit moisture and soil gases from migrating into and throughout the living space.

RECOMMENDED ACTION: Safety Concern | Health Concern | Recommend Sealing



open sump basket covers
should be sealed

sealed covers prevent soil
gases and moisture from
migrating to the interior
of the home



LOCATION: Basement **SYSTEM:** Plumbing

CONDITION: Water distribution pipe, connection, or valve **leaking or indication of leaking**

EXPLANATION: A leak or indication of leaking on piping, valves, or connections, is noted in the water distribution system. Indications may include an active leak, or mineral build-up or corrosion, that may be accumulate or be present when there is a slow leak. Very slow leaks may be temporarily plugged by this mineral build-up.

IMPACT/CONSEQUENCES: Leaks in water distribution system can lead to water damage to interior finishes and belongings, and can result in expensive repairs. Indications of leaks should be thoroughly investigated and required repairs should be performed by a Specialist. Left uncorrected, minor leaks can permit mold and rot to occur which can have significant effects to the health of the home's occupants and the integrity of the structure. The source and cause of the leak should be investigated and remedial action should be a priority.

RECOMMENDED ACTION: Repair | Consult Specialist

LOCATION: Water Heater (20 years old) **SYSTEM:** Plumbing

CONDITION: The **future performance of the water heater is suspect and not predictable**

EXPLANATION: Aspects of my review of the water heater have raised concerns regarding the water heater's current and future ability to provide the intended water heating. Conditions as observed may include such factors as age (most common), physical condition, damage, rust or corrosion, and observation of maintenance neglect.

NOTE: Water heaters that are approximately 10 years and older are more suspect to future performance issues and failure but...failure **is possible sooner**. Factors such as water heater design, supply water (rust, high mineral content, etc.), working environment (dry or humid), installation and configuration can affect the life of a water heater.

IMPACT/CONSEQUENCES: The current condition of the water heater is such that the functionality of the unit to provide adequate heating in the future is suspect. Consideration should be given for providing future replacement should the water heater fail to functionally and economically meet the water heating needs for this home. Having the water heater checked and tested more intensively by a reputable plumbing contractor to better evaluate its current condition and future capability to provide water heating is advised.

RECOMMENDED ACTION: Review | Monitor | Consult Plumbing Specialist



LOCATION: Exterior Left **SYSTEM:** Plumbing

CONDITION: Sump pump drain pipe is **discharging into an underground pipe**

EXPLANATION: The sump pump drain pipe is discharging in a underground pipe near the home's foundation. The purpose of the sump is intended to collect and remove water from the soils near the foundation for discharge at a distance from the home. There is concern that this pipe, not being sealed at the top, having an unknown place of termination, or exposed to the possibility of freezing, may be clogged or damaged below the grade and not operating as intended. This will promote water saturation of soils at the foundation and footings, and may result in moisture-related problems in the basement.

IMPACT/CONSEQUENCES: The sump pump discharge should be installed such that with some degree of assurance that the drainage will occur away from the foundation of the home. Water accumulation near the foundation may lead to foundation and basement dampness issues. This condition should be immediately corrected. Failure to promote proper drainage away from the foundation may result in moisture-related issues to the foundation and basement.

RECOMMENDED ACTION: Recommend Modification | Consult Specialist

LOCATION: Water Heater **SYSTEM:** Plumbing

CONDITION: Drip leg does not meet requirements for a gas appliance - Water Heater

EXPLANATION: The drip leg in the gas line to an appliance is either not present, ineffective, or could not be located or observed in the course of inspection.

IMPACT/CONSEQUENCES: The drip leg catches condensation and other sediment in the gas line before it can cause problems with the performance and safe operation of the appliance. The absence of a drip leg for all gas appliances should be considered a **safety issue** requiring immediate remedy.

RECOMMENDED ACTION: Safety Concern | Install | Consult Specialist



OBSERVATIONS & SUGGESTIONS:

IMPORTANT: Turn off interior shut-offs (where applicable), drain all exterior faucets that may be susceptible to frost damage, and remove all hoses, anti-syphoning devices, and vacuum breakers from all faucets in preparation for winter. This is required to prevent water from freezing in the faucets and water pipes that could rupture the pipes or damage the faucets.

Operate all shut off valves at least twice a year to ensure valves operate and to prevent the valve mechanisms from seizing over time.

NOTE: I recommend having the sewer or septic system (where appropriate) professionally scoped (drain camera) to assure the integrity, performance, and to further educate them about the existing conditions of the sewer line that are beyond the scope of work of a home inspection. Home inspections do not cover the structural integrity or condition of sewer or septic lines. Sewer repair can be costly, therefore, having a sewer or septic line inspection prior to purchasing a property is a proactive approach to make an educated buying decision and avoiding unforeseen expenses.

Pictures shown may be only a representative sample of all the related areas of concern.

PURPOSE

The primary purpose of the electrical system is to provide for the electrical needs for your home. This includes providing the means and metering of the electrical supply, the distribution of electricity via protected branch circuits to areas in the home, and providing lighting fixtures, switches, and outlets to meet the needs for powering lighting, appliances, and personal electrical and electronic devices.

INSPECTION PROCESS

As documented by this report, the inspection of the electrical system includes examination of: the service drop; the service entrance conductors, cables and raceways; the service equipment and main disconnects; the service grounding; the interior components of service panels and subpanels; the conductors; the overcurrent protection devices; a representative number of installed lighting fixtures, switches, and receptacles; and the ground fault circuit interrupts. Reported below are the characteristics of the electrical system elements examined, including the amperage and voltage rating of the service; the location of the main disconnect and subpanels; and the wiring methods, as well as other appropriate information noted during the course of inspection.

Note that this inspection of the electrical system does not normally include and report on: the remote control devices unless the device is the only control device; the alarm system and components; the low voltage wiring, systems, and components; and the ancillary wiring, systems and components not part of the primary power distribution system. Measurement of amperage, voltage or impedance are not normally conducted as part of the inspection process.

COMPONENT CHARACTERISTICS:

ELECTRICAL METER

LOCATION

Exterior Left Wall

ELECTRICAL SERVICE SIZE

100 Amperes

ELECTRICAL SERVICE VOLTAGE

120/240 Volts

ELECTRICAL SERVICE CABLE TYPE

Buried Cable

MAIN DISCONNECT LOCATION

Basement Left Wall

MAIN DISCONNECT SIZE

100 Amperes

MAIN DISCONNECT TYPE

Circuit Breaker Disconnect

ELECTRICAL SYSTEM GROUND

LOCATION

Water Meter

MAIN PANEL LOCATION

INCOMING SERVICE: Electricity as supplied to your home is delivered either through a buried cable protected in a conduit or through overhead wires to a service mast. The service side of the electrical system includes a meter, used to provide your electrical utility the means for measuring electricity consumption to permit billing for power usage.

SERVICE VOLTAGE: The service voltage for most homes in North America is rated generally as 120/240 volts, 60 cycles per second, to correspond to standard voltage requirements for electrical appliances and devices. In high-rises, the supply voltage is generally delivered to the building as 3-phase and at a higher nominal voltage, with transformers used to split the supply to single phase, such that electricity supplied to individual units is at 208/120 volts, 60 cycles per second.

SERVICE SIZE: The service size is an indication of the load capacity of the incoming service wires, and is rated as the maximum current carrying capacity of the supply conductors measured in amperes ["Amps"].

MAIN DISCONNECT: The main disconnect serves as the means for shutting off the power to the home, for operation under emergency situations and to permit maintenance. This disconnect may be either as a separate switch or is integral with the main electrical panel. When provided as a switch, this switch will be either circuit breakers or will include fuses in the switch enclosure to provide for overcurrent protection of the home's electrical system. The load capacity of the home's electrical system is determined by the rating of the main disconnect.

SYSTEM GROUND: The system ground is required to ensure a fixed common voltage reference for the safe operation of the electrical system. The system grounding point is most often found secured to the supply water pipe below the water meter for homes connected to a municipal water supply, and will vary for homes on a private water supply, where grounding may be to the metallic well casing, to buried grounding mats or ground rods. Connection to the system grounding point is a copper wire with its ends terminated at the

Exterior Rear Wall [AC]

MAIN PANEL SIZE

100 Amperes

MAIN PANEL BRANCH CIRCUIT PROTECTION

Breaker(s)

SECONDARY PANEL

LOCATION(S)

Exterior Left Wall [AC]

SECONDARY PANEL SIZE(S)

N/A

SECONDARY PANEL BRANCH CIRCUIT PROTECTION

N/A

DISTRIBUTION WIRING TYPE

Copper

ELECTRICAL OUTLETS

3-Prong

GFCI-PROTECTED OUTLETS AT:

Bathrm(s)

Kitchen

Garage

Exterior

AFCI-PROTECTED OUTLETS AT:

N/A

SMOKE DETECTORS

Main Floor

2nd Floor

Basement

CARBON MONOXIDE DETECTORS

Main

2nd Floor

grounding clamp and at the main disconnect enclosure. The system ground point should be checked periodically to ensure this connection is secure and that this connection does not corrode to the point that its integrity is impaired.

ELECTRICAL PANEL: The main electrical panel, and possibly subpanels, are the termination points for the distributed branch electrical circuits for the home. Over-current protection devices, most commonly in the form of circuit breakers, allow power to be supplied to individual circuits. Fuses are also an acceptable form of circuit protection, but are not generally found in newer homes. Switching a breaker to the "off" position, or removing fuses if installed, will disconnect electrical current to individual circuits. These devices will switch off (breakers) or burn out (fuses) during over-current or short circuit situations, which otherwise could result in hazards such as shock or fire.

OUTLETS: Electrical outlets provide the means for connecting electrical appliances and devices to the home's electrical circuits. Most outlets are designed for 120 volt, maximum 15 ampere connection. These outlets typically have plug-ins for 3-pronged plugs, with 2 parallel rectangular prongs and a grounding (round) prong. Other forms of plugs can be found for heavy appliances; these outlets are larger in size and have different prong configurations. For example, stoves generally require connection to 40 ampere, 240 volt circuits and only an outlet at this rating must be installed to permit connection of the stove plug to its outlet.

GROUND-FAULT PROTECTED CIRCUITS: Special protection is required where outlets are located in locations where the presence of water increases the risk of electrical shocks. These locations include areas outside the house, bathrooms, areas in the kitchen near sinks, and powered specialty items containing motors and controls near water, such as spas, whirlpool ("turbo") tubs, and swimming pools. Ground fault circuit interrupters [GFCI's] are used to provide electrical protection by sensing current finding a path to ground, as encountered in situations where shocks could be occurring, and shutting off the power to the outlet. The most common form of protective device is the GFCI receptacle, which has two buttons visible at the face of the outlet. GFCI protection may also be found as special circuit breakers with a test button on the face of the breaker marked "test" and labeled as "GFCI". GFCI outlets and breakers should be tested periodically to assure their operability. Refer to manufacturer's instructions for test method and frequency.

ARC FAULT CIRCUIT PROTECTION: In certain jurisdictions, arc fault circuit interrupt (AFCI) protection is required in new homes for bedroom electrical outlets, to switch off the power to the circuit if the AFCI device detects the presence of electrical arcing. Because furniture and objects are frequently moved in bedrooms, and lighter gauge cords are more frequently used, cords and plugs tend to have a higher frequency of damage. Fraying and pulling on cords plugs may damage the cords to the point of conductors becoming exposed, which can lead to electrical arcing and fire. Arc fault protection is provided by special circuit breakers at the main electrical panel, and can be identified by a test button on the faceplate marked "Test" and labeled as "AFCI". AFCI breakers should be tested periodically to assure their operability. Refer to manufacturer's instructions for test method and frequency.

SMOKE AND CARBON MONOXIDE DETECTORS: Smoke and carbon monoxide detectors in new homes are powered by the home's electrical system. The devices are designed to alert the home's occupants of potential risks of fire and elevated carbon monoxide levels. Refer to manufacturer's instructions for operation, maintenance, and periodic testing of these devices.

RESTRICTIONS:

At the time of inspection, the following restrictions applied to the examination of this system:

Main electrical disconnect was not operated
 Circuit breakers in "Off" position not operated
 Wiring that is concealed is not inspected
 Outlet/switch wall plates were not removed
 Outlets in use, blocked, or restricted were not tested

ELECTRICAL SYSTEM ASSESSMENT SUMMARY:

Overall Condition: Acceptable; Repairs Required. In assessing the various aspects of the electrical system of this home, conditions are noted where repairs are required. Assuming the noted conditions are repaired, the overall condition would be acceptable, with periodic monitoring and preventative maintenance activities performed.

Deficiencies Noted: In assessing the various aspects of the electrical system of this home, conditions are noted that are of a major nature, affecting the ability of the electrical system components to meet all aspects of intended use and functionality. Correction of these deficiencies should be considered as a priority.

Safety Concerns Noted: In assessing the various aspects of the electrical system of this home, conditions are noted that affect the health and safety of the home's occupants. Correction of these deficiencies should be considered a priority.

DEFICIENCY SUMMARY:



LOCATION: Laundry Room **SYSTEM:** Electrical
CONDITION: GFCI outlet recommended (SAFETY UPGRADE)

EXPLANATION: GFCI circuitry gives extra protection over a regular receptacle. Circuit protection may not have been required at the noted location(s) at the time the home was built or when the electrical service was updated. Circuit protection is recommended at the noted location(s) and other locations where they may now be required for safety.

IMPACT/CONSEQUENCES: The GFCI receptacle is provided as a safety device in locations where the presence of water increases the risk of electrical shock. Generally recommended where a outlet is within 6 feet of an area that dispenses water (sinks, showers, tubs, laundry area, wet bars, etc.). The absence of circuit protection at the noted location(s) may result in serious injury and possibly death from electrical shocks. Installation by a licensed contractor is advised.

RECOMMENDED ACTION: Recommended Safety Upgrade | Consult Specialist



LOCATION: Bedroom - Master **SYSTEM:** Electrical

CONDITION: Electrical outlet box is **not adequately or properly secured**

EXPLANATION: An electrical outlet box is not adequately or properly secured.

IMPACT/CONSEQUENCES: A loose outlet box may in certain circumstances present a risk of fire and electrical shock should the outlet box be pulled out or apart from the connecting conduit and damaging wires. Loose outlet boxes should be properly installed to ensure they are properly positioned and secured so they may be safely used as intended.

RECOMMENDED ACTION: **Safety Concern** | Repair



LOCATION: Exterior Outlets **SYSTEM:** Electrical

CONDITION: Exterior electrical weather resistant outlet cover outdated

EXPLANATION: The outlet cover at the noted location does not appear to meet the current requirements for a safe exterior weather resistant cover. Outlets installed on outdoor locations or locations where moisture can come in contact with the outlet should be installed in an approved weather resistant box with an approved weather resistant cover that provides weatherproof protection when a cord is inserted.

IMPACT/CONSEQUENCES: This condition may expose the outlet to risks including shorting, damage, and deterioration. Outlet covers displaying damage or are ineffective at preventing moisture infiltration should be immediately replaced. This condition is a **safety concern** and repairs should be a priority.

RECOMMENDED ACTION: Safety Concern | Replace | Consult Specialist



outdated outlet

**recommended
outlet**

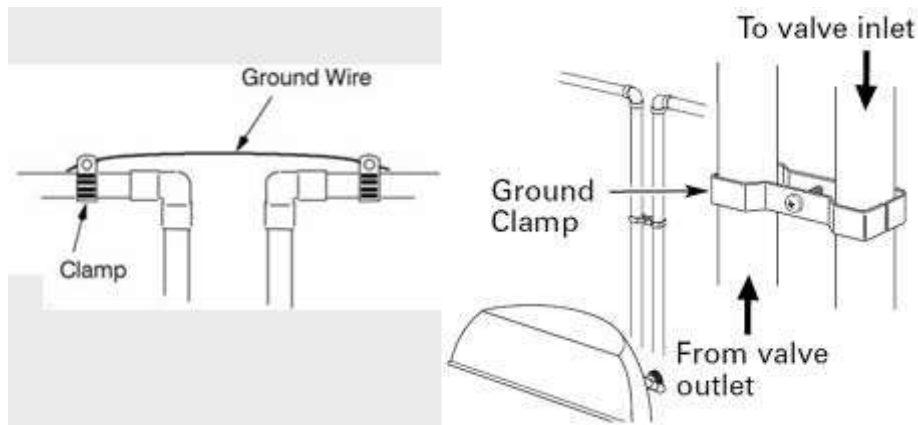
LOCATION: Water Conditioner (softener) **SYSTEM:** Electrical

CONDITION: The bonding jumper wire at the [water conditioner](#) is missing, ineffective, non-conforming, or can not be verified

EXPLANATION: When the water distribution pipes are used to ground the electrical system there must be a continuous connection into the ground where the water pipes enter the home. Common piping configurations at the water conditioner can break this continuous connection. A grounding system jumper wire is used to correct this condition. The grounding jumper wire should attach to the pipes on both sides of the water conditioner or between the pipes of the water conditioner.

IMPACT/CONSEQUENCES: To assure proper operation of circuit breakers under over-current or short-circuit situations, the point of attachment of the system bonding to its system grounding point must be properly installed and secured. Failure to achieve a secure grounding component for the electrical system may constitute a safety hazard, and may result in damage to electrical components and appliances attached to the home's electrical system. This condition, when present, is a safety concern and should be immediately rectified.

RECOMMENDED ACTION: Safety Concern | Consult Specialist



LOCATION: Exterior Left **SYSTEM:** Electrical

CONDITION: Exterior junction box is not weather-tight

EXPLANATION: The exterior junction box does not appear to be weather-tight. Aspects of the junction box such as the weather strip or gasket, cover, or junction box are damaged, deteriorated, missing or in some manner not sealed as intended to prevent infiltration. Junction boxes installed in outdoor locations or locations where water can come in contact with or infiltrate into the junction box, should be installed using an approved weather-tight junction box with a gasket and/or weather-tight cover.

IMPACT/CONSEQUENCES: A junction box not installed as a weather-tight enclosure, and when in an location where water can enter the box, is subject to shorting, damage, and deterioration. For safety, a suitable box and cover should be installed.

RECOMMENDED ACTION: Safety Concern | Repair, Replace | Consult Specialist

OBSERVATIONS & SUGGESTIONS:

Ground Fault Circuit Interrupt [GFCI] outlets and Arc Fault Circuit Interrupt [AFCI] circuit breakers, if and where installed, should be tested in accordance with manufacturer's recommendations, to confirm these devices are operable and providing protection. Failure to operate periodically may result in the mechanical components of these devices becoming inoperable over time, thus not providing the intended personal protection. If uncertain about the frequency of testing, the suggested frequency of testing is once per month for GFI circuit protection devices and AFCI protection devices.

Smoke detectors, fire detectors, and carbon monoxide detectors should be tested periodically in accordance with manufacturer's recommendation, to assure these devices are operable and providing protection. Failure to perform periodic test reduces assurance that the home's occupants will be alerted in the event of hazardous events. If uncertain about the frequency of testing, the suggested frequency of testing is once per month. If devices are operated by or contain batteries as back-up power, it is suggested that batteries be changed in accordance with manufacturer's recommendations, or every 6 months if not specified. Replacement of smoke and carbon monoxide detectors every 5 years is recommended.

Do not open electrical boxes or fixtures, or remove wall plates, without first assuring circuits are powered off.

PLEASE NOTE: Electrical inspection tags may not be present on the panel at the time of the inspection. They may not be required. If issued, they may have been removed, fallen off over time, or not issued by the local jurisdiction or state even if the work performed was done with a permit. This procedure varies throughout the state. If present, the inspection tag may reflect all of the electrical work that has been completed. It is beyond the scope of the inspection and not the responsibility of the home inspector to note, find, or determine if an inspection tag was ever issued for the original work or any additional work. The client is advised to check with the local authority regarding all permits and inspections required by the state or local jurisdiction.

Pictures shown may be only a representative sample of all the related areas of concern.

The residence at 2093 Wild Wings Pass, Elko New Market, Minnesota, 55054 was inspected on Monday, January 11, 2021 with the inspection commencing at approximately 1:00 PM.

This home is a 2 storey single family residence of approximate age 20 years [year built approx 2001]. Ambient conditions at the time of inspection were: Sunny; Variably Cloudy; Calm/Light Wind; Temperature: 20 to 30 °F.

This Report is provided as information to the contracted party(s): Brian & Taylor Pederson. This Report is for the exclusive use of the contracted party(s). No use of the information by any other party is intended.

Information as provided within this Deficiencies Report is for summary purposes only, and does not represent the full report. This inspection is visual in nature, with examination limited to those aspects of the property that were readily accessible during the inspection process, and the inspection was performed in context of conditions as presented at the date and time of inspection.

The inspection report in its entirety should be reviewed for the purpose of understanding the overall condition of the property and the condition of specific home systems and components. Each report section for the systems inspected contains information concerning assessment of the system as a whole, restrictions to examination, and the comments and suggestions of the inspector.

1 LOCATION: All locations not terminating to grade a minimum of 8 ft. out from foundations, footings, walkways, driveways, support posts **SYSTEM:** Roof

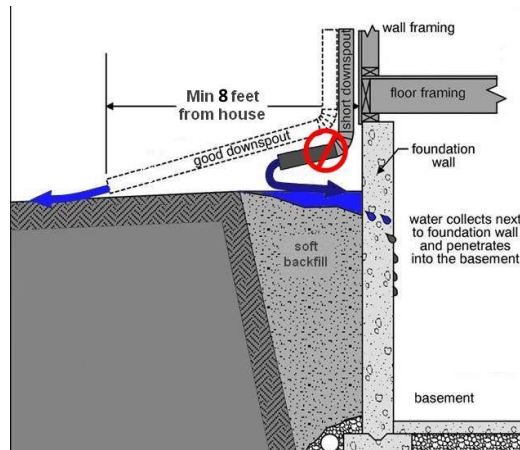
CONDITION: Downspout discharges too close to foundation, footing, support column, patio, driveway, retaining wall, stairway, or walkway

EXPLANATION: The discharge point for the downspouts is observed to be near a foundation, footing, support columns, patio, driveway, or walkway. Although a minimum of 8 ft is recommended, water discharge should be as far from the foundation, footings, patio, driveway, or walkway as practical or possible, or to a distance that positively allows water to drain away from the foundation or other structural elements, to prevent soil erosion, water saturation, damage, and deterioration to these items. Downspouts are recommended to dispense water outside of garden edging material, such as block, vinyl edging, or other material that would hold water or restrict it from draining away from the foundation. As a general rule, try to keep all downspout termination points at least 8 ft. away from anything that will cost you money to replace or repair. Homes built on lots that have flat grading may require much longer downspout extensions and more distant termination points to protect the structure.

NOTE: Townhome associations may not permit this. The extensions interfere with lawn and grounds maintenance.

IMPACT/CONSEQUENCES: Downspouts are a key component in the controlled drainage of run-off water away from the home's exterior elements. Downspout ends or extensions that are missing may result in water saturation of soils near the foundation, footings, patio, support columns, driveway, or walkway during rains, which in turn can result in basement moisture or leakage issues, settling, heaving, or other structural issues. It is recommended that the point of discharge be as far as necessary to get to an area that positively slopes away, but at least 8 feet away from any structural or support elements, and any traversable surfaces that could develop slippery surfaces during colder weather. Repair should include installing the correct length of downspout extension to assure that water freely flows and drains at a suitable distance from the previously mentioned items.

RECOMMENDED ACTION: Recommend Modifications | Consult Specialist



SUMMARY OF OBSERVED DEFICIENCIES

2

**LOCATION:** Downspouts - Various Locations **SYSTEM:** Roof**CONDITION:** Downspout tail piece performance is suspect (ribbed extension)**EXPLANATION:** A section of the downspout is observed to be of a style, type, or configuration that does not appear to be suitable to assuring discharge water will be free flowing and discharge away from the foundation wall effectively. This may include flexible or "ribbed" sections, slope, or drain tile. Ribbed drains do not rinse clean causing a build-up of debris within the downspout causing blockage, which may attract rodents which may nest in the ribbed section of the downspout causing additional blockage.**IMPACT/CONSEQUENCES:** Downspouts are a key component in the controlled drainage of run-off water away from the home's exterior elements. Poorly designed or configured downspout end terminations may result in water saturation of soils near the foundation during rains, which in turn can result in basement moisture or leakage issues. It is recommended that the point of discharge be at least 6' (2 m) from the foundation; repair should include replacing the downspout extension. The downspout assembly should assure that water freely flows and drains at a suitable distance from the foundation wall.**RECOMMENDED ACTION:** Monitor closely.

3

**LOCATION:** Exterior Rear **SYSTEM:** Roof**CONDITION:** Gutter appears to have overflowed**EXPLANATION:** The gutter displays indications that it has overflowed. This is usually an indication that debris has built up in the gutters, such that the free flow of water has been restricted to some degree causing the gutter to fill and overflow.**IMPACT/CONSEQUENCES:** Gutters are a key component in the controlled drainage of run-off water away from the home's exterior elements. Water backing up in the gutter may add sufficient weight to the gutter to cause its detachment from the structure. Gutters that do not perform as intended may result in saturation of soils near the foundation, which in turn can result in basement moisture or leakage issues. Repair should include removing debris and assuring that water freely flows and drains from the gutter.**RECOMMENDED ACTION:** Maintenance

SUMMARY OF OBSERVED DEFICIENCIES

4

**LOCATION:** Laundry Room **SYSTEM:** Electrical**CONDITION:** GFCI outlet recommended (SAFETY UPGRADE)

EXPLANATION: GFCI circuitry gives extra protection over a regular receptacle. Circuit protection may not have been required at the noted location(s) at the time the home was built or when the electrical service was updated. Circuit protection is recommended at the noted location(s) and other locations where they may now be required for safety.

IMPACT/CONSEQUENCES: The GFCI receptacle is provided as a safety device in locations where the presence of water increases the risk of electrical shock. Generally recommended where an outlet is within 6 feet of an area that dispenses water (sinks, showers, tubs, laundry area, wet bars, etc.). The absence of circuit protection at the noted location(s) may result in serious injury and possibly death from electrical shocks. Installation by a licensed contractor is advised.

RECOMMENDED ACTION: Recommended Safety Upgrade | Consult Specialist

5

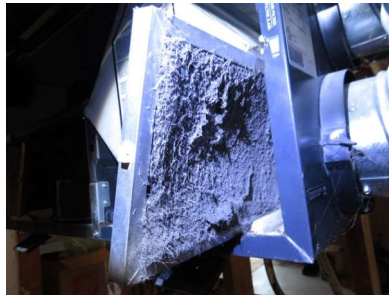
**LOCATION:** Bedroom - Master **SYSTEM:** Electrical**CONDITION:** Electrical outlet box is **not adequately or properly secured**

EXPLANATION: An electrical outlet box is not adequately or properly secured.

IMPACT/CONSEQUENCES: A loose outlet box may in certain circumstances present a risk of fire and electrical shock should the outlet box be pulled out or apart from the connecting conduit and damaging wires. Loose outlet boxes should be properly installed to ensure they are properly positioned and secured so they may be safely used as intended.

RECOMMENDED ACTION: **Safety Concern** | Repair

6



LOCATION: HRV (Heat Recovery Ventilator/ Air Exchanger) **SYSTEM:** Heating/Cooling

CONDITION: The HRV / Air exchange unit and filters need maintenance

EXPLANATION: The HRV/Air Exchanger filters were observed to be dirty or clogged such that proper performance of this appliance may not be possible. The HRV keeps the home supplied with a steady flow of fresh outdoor air. As stale, warm air is expelled, the heat recovery core warms the incoming fresh, colder air before it is distributed throughout the home. The result is a constant supply of fresh air, no unpleasant drafts and greater home comfort. In addition to heat recovery and improved air quality, the HRV provides necessary ventilation while controlling excess humidity. Periodic maintenance of the HRV is required to prevent the filters and core from becoming clogged.

IMPACT/CONSEQUENCES: Dirty filters and core will restrict the air flow through the HRV, which will reduce the efficiency of the unit. Blocked air flow can affect the life expectancy of the unit, may prevent proper defrosting of the unit when in operation, and may affect proper balance of air flow. The unit should be maintained in accordance with the manufacturer's instructions.

Positive air pressure

1. Pushes hot and/or humid air into walls and insulation; condensation can lead to mold, mildew and rot.
2. Heat loss

Negative air pressure

1. Cold air infiltrates house
2. May increase energy costs
3. May cause combustion appliances to backdraft

The exterior HRV air intake openings should be checked regularly for any build up on the screens which may restrict flow. Professional calibration of this appliance and regular cleaning of the interior and exterior HRV filter(s) is recommended.

RECOMMENDED ACTION: Replace; Clean If Reusable Type

7



LOCATION: Exterior Rear **SYSTEM:** Heating/Cooling

CONDITION: Condenser unit fins or screen clogged or becoming clogged

EXPLANATION: Dirty fins or screens are noted at the condenser (outside) unit of the air conditioner. This condition may hinder proper operation of this appliance and may result in premature failure.

IMPACT/CONSEQUENCES: Air flow through the coil section of the outdoor unit is reduced where coolant fins or screens are clogged. The effect will be a reduction in efficiency of the unit, with the degree of effect proportional to the size of the area of blockage. Check and clean periodically carefully with a medium stream of water. Never use a pressure washer.

RECOMMENDED ACTION: Recommended Maintenance

8

LOCATION: Furnace, Air Conditioner, Ductwork, HRV, Air Exchanger **SYSTEM:** Heating/Cooling

CONDITION: Indications of neglected maintenance of the HVAC system

EXPLANATION: One or more indications of maintenance neglect are observed at the furnace, air conditioner, filters, humidifier, blower unit, or HRV (air exchanger). A thorough tune-up of the entire HVAC system (furnace, air conditioner, HRV, blower unit, Air Exchange system, etc) by a reputable HVAC company is recommended to clean, adjust, lubricate, calibrate, change filters, clean duct work, and test for proper operation and performance.

NOTE: When this condition is observed it may not be possible to fully evaluate the proper operation and performance of this system until it is fully serviced (tuned up, filters changed,

HRV or air exchanger cleaned, exterior vents cleaned, AC coil or condenser screens cleaned).

IMPACT/CONSEQUENCES: Thorough tune-ups should be performed annually as these can assure the efficiency of the furnace and can have a positive impact the life expectancy of key components in the furnace, such as the heat exchanger and blower motor, both of which can have significant cost impact should they fail.

RECOMMENDED ACTION: Recommend Servicing or Maintenance

9

LOCATION: Furnace Filter **SYSTEM:** Heating/Cooling

CONDITION: Air filter is excessively dirty

EXPLANATION: The air filter is observed to be excessively dirty such that the circulating air flow is highly restricted.

IMPACT/CONSEQUENCES: A dirty filter will restrict the air flow through the furnace, which will reduce the efficiency of the furnace. Longer term impacts may include reduced life expectancy of the furnace, overheating of the circulating blower motor, and overheating of the heat exchanger. The air filter should be checked on a regular basis (monthly is recommended) and changed or cleaned when dirty.

RECOMMENDED ACTION: Replace; Clean If Reusable Type

SUMMARY OF OBSERVED DEFICIENCIES

10



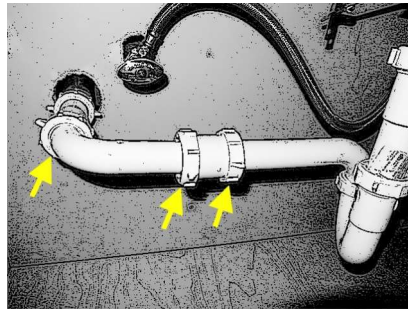
LOCATION: Kitchen **SYSTEM:** Plumbing

CONDITION: Drain pipe configuration non-conforming (**multiple slip joints**)

EXPLANATION: Drainage pipe components are missing at slip joints or too many slip joints have been installed on the horizontal section between the trap and vent pipe junction. Generally, one slip joint is permitted from the trap to the vent pipe. Proper installation of the drain piping and traps is necessary for proper drainage, to prevent leaks, safety, and health.

IMPACT/CONSEQUENCES: Incomplete, missing or improper installation of the drainage piping or traps may result in sewer gases entering the home, leaking causing unsanitary conditions and damage, or poor performance or function of the drain system. Immediate attention is recommended.

RECOMMENDED ACTION: Health Concern | Review | Repair | Consult Specialist



SUMMARY OF OBSERVED DEFICIENCIES

11



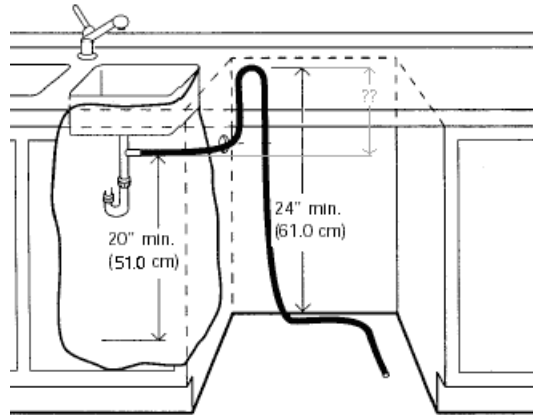
LOCATION: Kitchen **SYSTEM:** Plumbing

CONDITION: Drain pipe configuration or connection from dishwasher non-conforming

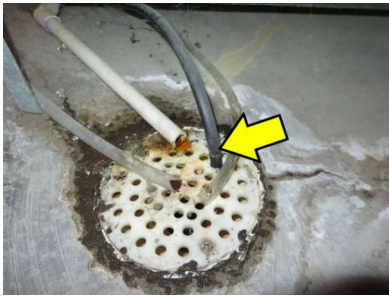
EXPLANATION: The drain pipe from the dishwasher has been installed in a manner that does not meet current standards for this type of plumbing connection. Generally, the drainage pipe should be looped and attached so the top of the loop is as high as possible to the underside of the countertop. Ideally, the loop should be at least half way up the depth of the sink. Non-conforming configurations may include connections without the use of a trap, drain piping material, drain connections, slope, or clamps.

IMPACT/CONSEQUENCES: This is a safety and sanitary issue. If the kitchen drain backed up, the "greywater" could easily flow back into the dishwasher if there was no high loop to provide backflow resistance.

RECOMMENDED ACTION: Health Concern | Replace, Repair, or Adjust



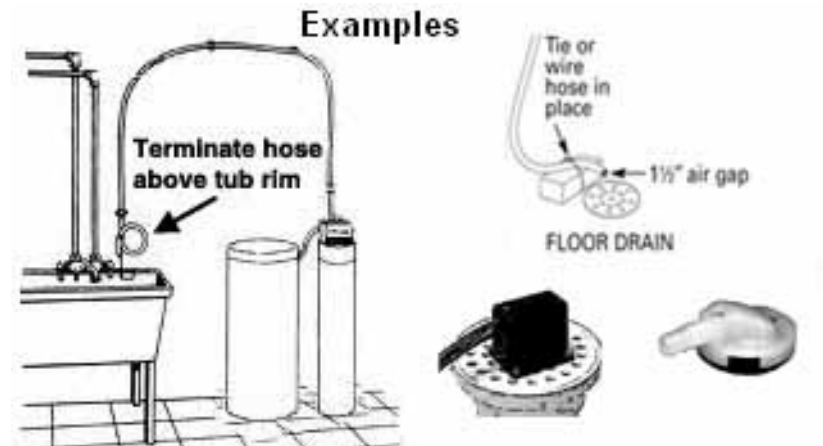
12

**LOCATION:** Water Conditioner (softener), Floor Drain **SYSTEM:** Plumbing**CONDITION:** Drainage configuration is potential health concern (cross-contamination)

EXPLANATION: The configuration of the drainage piping from the water conditioner allows for the possibility of “cross-contamination” of potable water and gray (waste, contaminated, or unsafe) water. A cross-connection is an unprotected actual or potential connection between a potable water system used to supply water for drinking purposes and any source or system containing unapproved water or a substance that is not or cannot be approved as safe, wholesome, and potable. Although many manufacturers are installing built-in check valves in water softeners, it is important to be aware of this possibility since the presence of a check valve can not usually be verified. The end of a drain, hose, or pipe from a potable water source should not terminate below the rim of a sink, drain, sump pump, waste lift system, or tub. Additionally, there should be a minimum of 1½ inches of separation of the potable drainage piping to a drain grate or floor.

IMPACT/CONSEQUENCES: This drainage configuration is a potential risk to health. A plumber may be required to investigate and implement corrective rework to assure proper installation of the drainage system and components to prevent backflow and contamination of the potable water system.

RECOMMENDED ACTION: Health Concern | Repair | Consult Specialist



13



LOCATION: Bathroom - Master **SYSTEM:** Plumbing

CONDITION: Caulking is incomplete at bathtub/shower spout, taps, or wall penetrations.

EXPLANATION: The faucet spout, taps, handles, or other wall penetrations are observed to have incomplete or open caulking. Caulking is required to provide an effective barrier against water penetration.

IMPACT/CONSEQUENCES: Caulking is a preventative action to keep water from seeping into walls, and causing damage associated with leaks. Failure to provide effective sealing can result in damage and costly repairs.

RECOMMENDED ACTION: Repair



SUMMARY OF OBSERVED DEFICIENCIES

14



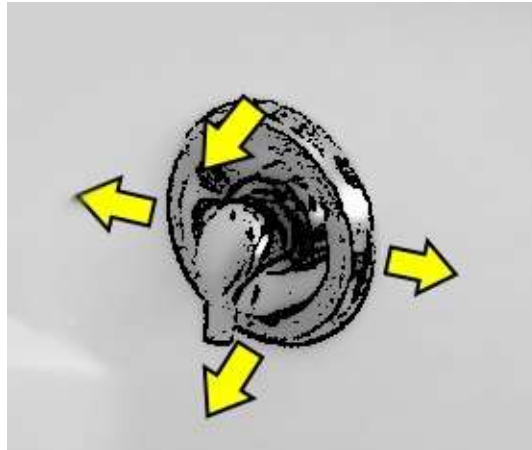
LOCATION: Bathroom - Master **SYSTEM:** Plumbing

CONDITION: Shower tap installation concerning (loose)

EXPLANATION: The tap is observed to be installed in such a manner that when pulled or turned to dispense water the entire tap (handle) mechanism has excessive movement, or is not properly secured to prevent it from sliding side to side, pulling out, or moving away from the shower enclosure wall.

IMPACT/CONSEQUENCES: The faucet should be installed correctly so it may be used as intended and it can remain sealed to prevent water infiltration behind the faucet, and to prevent possible broken solder joints or connections.

RECOMMENDED ACTION: Repair | Consult Specialist



SUMMARY OF OBSERVED DEFICIENCIES

15



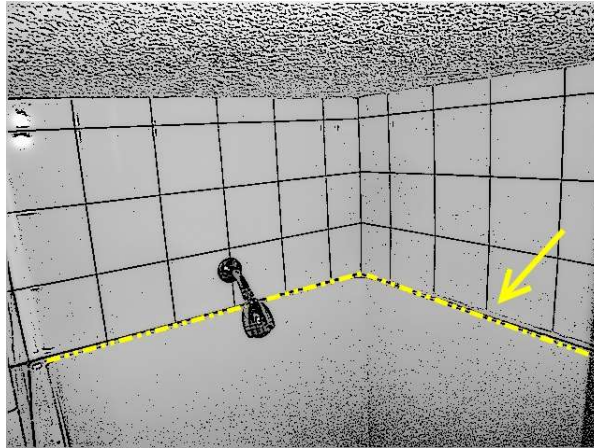
LOCATION: Bathroom - Master **SYSTEM:** Plumbing

CONDITION: Shower enclosure top edge requires effective sealing.

EXPLANATION: The shower enclosure top edge caulk requires maintenance or is observed to have unsealed areas (gaps, cracks, openings, etc.) along the top edge of the material (tile, plastic, fiberglass, etc.) that may permit infiltration behind the enclosure.

IMPACT/CONSEQUENCES: These open areas will likely compromise the effectiveness of the enclosure in preventing moisture from seeping into walls and causing damage associated with infiltration. If moisture gets behind the surround it may result in organic growth (mold, mildew, fungus) in the lower open seams, under the lower caulk seams, or behind the surround. Failure to provide effective repairs can result in organic growth, water damage, and costly repairs to the wall, floor, or areas below the shower enclosure.

RECOMMENDED ACTION: Repair | Consult Specialist



16



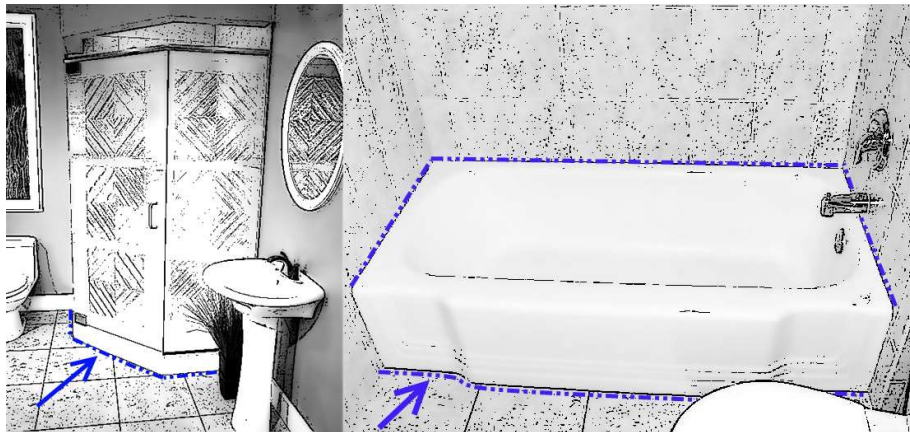
LOCATION: Bathroom - Master, Upper **SYSTEM:** Plumbing

CONDITION: Caulking is incomplete or open at bathtub edges, shower/bathtub and floor junction, or shower/bathtub wall junction inside and outside the plane of the shower or tub

EXPLANATION: Caulking is required to prevent water penetration at junctions between the shower, bathtub, floor, adjacent trim, and walls. Caulking is observed to be inadequate to meet the intended requirements for sealing against water leaks at the bathtub or shower floor and wall junctions.

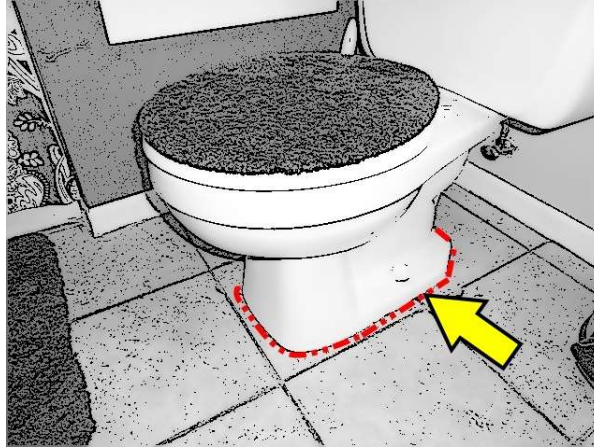
IMPACT/CONSEQUENCES: Caulking is a preventative action to keep water from seeping into walls and floors, and causing damage associated with leaks. Failure to provide effective sealing can result in damage and costly repairs. I recommend an application of caulk where currently required to prevent infiltration. I also advise monitoring these areas as over time the caulk may dry, shrink, and crack requiring a reapplication of the caulk.

RECOMMENDED ACTION: Repair | Maintain as required to prevent infiltration | Consult Specialist



SUMMARY OF OBSERVED DEFICIENCIES

- 17** **LOCATION:** Bathroom - Master, Upper **SYSTEM:** Plumbing
CONDITION: Caulking between toilet and floor is deteriorated, missing, or incomplete.
EXPLANATION: Seal is missing between toilet and floor to prevent water intrusion.
IMPACT/CONSEQUENCES: Caulking should be installed to prevent water intrusion between toilet and floor.
RECOMMENDED ACTION: Repair



18



- LOCATION:** Bathroom - Upper **SYSTEM:** Plumbing
CONDITION: Manufactured solid-surface countertop (integrated basin) has cracks at the drain
EXPLANATION: Manufactured solid-surface countertops may develop stress cracks at or near the drain connection if the drain connections were not made in accordance with the manufacturer's instructions. Physical impacts can also cause chips and cracks.
IMPACT/CONSEQUENCES: Cracks in the surface of the bowl will ultimately result in leaks and water damage. The recommended action is to replace the sink.
RECOMMENDED ACTION: Monitor for Leaks | Replace

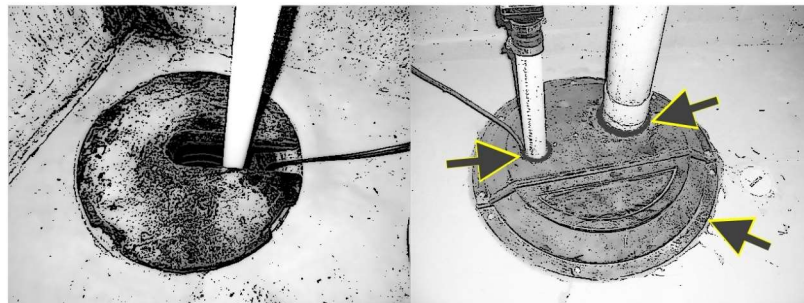
19 LOCATION: Sump Pump Basket Cover SYSTEM: Plumbing

CONDITION: Sump pump basket/cover and/or discharge pipe opening is not sealed - Recommendation

EXPLANATION: The sump pump basket, cover, and/or discharge pipe or power cord is not sealed at the basket/cover intersection and/or at the opening(s) or penetrations where the discharge pipe passes through the cover.

IMPACT/CONSEQUENCES: Since 2009, on new construction sump pump covers and any piping or power cords penetrating the cover are generally required to be sealed on all sump pump baskets. Where passive radon system vent pipes were also installed in the sump pump basket, those pipes were also required to be sealed at the area of penetration of the cover. Since we now know this can be a concern I recommend sealing the sump pump basket cover. An improperly sealed cover may not allow the radon system to operate as intended and may permit moisture and soil gases from migrating into and throughout the living space.

RECOMMENDED ACTION: Safety Concern | Health Concern | Recommend Sealing



open sump basket covers should be sealed

sealed covers prevent soil gases and moisture from migrating to the interior of the home

20



LOCATION: Basement SYSTEM: Plumbing

CONDITION: Water distribution pipe, connection, or valve **leaking or indication of leaking**

EXPLANATION: A leak or indication of leaking on piping, valves, or connections, is noted in the water distribution system. Indications may include an active leak, or mineral build-up or corrosion, that may be accumulate or be present when there is a slow leak. Very slow leaks may be temporarily plugged by this mineral build-up.

IMPACT/CONSEQUENCES: Leaks in water distribution system can lead to water damage to interior finishes and belongings, and can result in expensive repairs. Indications of leaks should be thoroughly investigated and required repairs should be performed by a Specialist. Left uncorrected, minor leaks can permit mold and rot to occur which can have significant effects to the health of the home's occupants and the integrity of the structure. The source and cause of the leak should be investigated and remedial action should be a priority.

RECOMMENDED ACTION: Repair | Consult Specialist

21 LOCATION: Furnace SYSTEM: Heating/Cooling**CONDITION:** The future performance of the furnace is suspect and not predictable**EXPLANATION:** Aspects of our review of the heating system have raised concerns regarding the furnace's current and future ability to provide the intended heating. Conditions as observed may include such factors as age, physical condition, wear, damage, observation of maintenance neglect, and rust/corrosion observed at various components in the furnace.**NOTE:** Furnaces that are 15 years and older are more suspect to future performance issues and failure.**IMPACT/CONSEQUENCES:** The current condition of the furnace is such that the functionality of the unit to provide adequate heating in the future is suspect. As a minimum, it is suggested that the furnace be checked and tested more intensively by a reputable heating Specialist to better evaluate its current condition and future capability to provide heating. Alternatively, consideration should be given to provide for future replacement should the furnace fail to functionally and economically meet the heating needs for this home.**RECOMMENDED ACTION:** Review | Consult HVAC Specialist**22** LOCATION: Air Conditioner SYSTEM: Heating/Cooling**CONDITION:** The future performance of the air conditioning system is suspect and not predictable**EXPLANATION:** Aspects of our review of the air conditioning system have raised concerns regarding the system's current and future ability to provide the intended cooling. Conditions as observed may include such factors as age, physical condition, wear, damage, observation of maintenance neglect, and rust/corrosion observed at various components in the condenser unit.**NOTE:** Air conditioners that are 15 years and older are more suspect to future performance issues and failure.**IMPACT/CONSEQUENCES:** The current condition of the condenser unit is such that the functionality of it to provide adequate cooling in the future is suspect. As a minimum, it is suggested that the air conditioning system be checked and tested by a HVAC Specialist to better evaluate its current condition and future capability to provide adequate cooling. Alternatively, consideration should be given to provide for future replacement should the air conditioning system fail to functionally and economically meet the cooling needs for this home.**RECOMMENDED ACTION:** Review**23** LOCATION: Water Heater (20 years old) SYSTEM: Plumbing**CONDITION:** The future performance of the water heater is suspect and not predictable**EXPLANATION:** Aspects of my review of the water heater have raised concerns regarding the water heater's current and future ability to provide the intended water heating. Conditions as observed may include such factors as age (most common), physical condition, damage, rust or corrosion, and observation of maintenance neglect.**NOTE:** Water heaters that are approximately 10 years and older are more suspect to future performance issues and failure but...failure is possible sooner. Factors such as water heater design, supply water (rust, high mineral content, etc.), working environment (dry or humid), installation and configuration can affect the life of a water heater.**IMPACT/CONSEQUENCES:** The current condition of the water heater is such that the functionality of the unit to provide adequate heating in the future is suspect. Consideration should be given for providing future replacement should the water heater fail to functionally and economically meet the water heating needs for this home. Having the water heater checked and tested more intensively by a reputable plumbing contractor to better evaluate its current condition and future capability to provide water heating is advised.**RECOMMENDED ACTION:** Review | Monitor | Consult Plumbing Specialist

24 LOCATION: Garage Floor SYSTEM: Exterior**CONDITION:** Garage concrete floor displays cracking (minor)

EXPLANATION: Cracks in the garage concrete pad is an indication of settlement or normal product shrinkage. Settlement causes may include soil compaction, soils with low bearing capacity, product shrinkage, age, soil saturation near the garage structure, poor lot drainage, absence of a gutter system, and ground heave. Minor cracking and/or indications of minor settlement are common and as a condition by itself does not usually result in garage structure issues.

IMPACT/CONSEQUENCES: I recommend monitoring this condition for excessive changes. Cracks should be sealed to help prevent further infiltration of moisture and road chemicals that can cause additional damage and deterioration of the concrete floor. Consult a Specialist should the cracks become more severe over time to determine the cause and remedial action to help prevent further cracking of the garage floor.

RECOMMENDED ACTION: Monitor | Evaluation and When Required - A Course of Action Determined by Specialist

25 LOCATION: Garage Floor SYSTEM: Exterior**CONDITION:** Garage concrete floor displays pitting and/or "rock pops" (minor)

EXPLANATION: The garage concrete floor surface is observed to have minor pitting or have rock pops. This condition is generally the result of repeated moisture and/or corrosive chemical exposure.

Note: Rock pops: Sometimes this is due to how the concrete was worked and finished when it was first poured.

NOTE: This condition is somewhat common for this part of the country with our weather, salts, and corrosive chemicals used on our walkways, and on our roadways that eventually drip from our cars.

IMPACT/CONSEQUENCES: Although minor pitting is primarily a cosmetic condition, the minor pitting may not allow proper cleaning or drainage. The value for future use should be weighted against safety, use, and cost factors. [Sealing the garage floor](#) should be considered to help prevent further deterioration.

NOTE: There are companies that may be able to resurface the floor and/or apply acceptable sealers on the concrete that may help with this condition.

NOTE: Many experts generally advise never to seal concrete with paint, epoxy coatings, or any coating that lays on top of the floor surface. Penetrating waterproofing sealers are generally more highly recommended by the experts.

RECOMMENDED ACTION: Review | Consult Specialist

26 LOCATION: Garage/House Door SYSTEM: Exterior

CONDITION: Garage/house door; door closer is missing, inoperable, or ineffective.

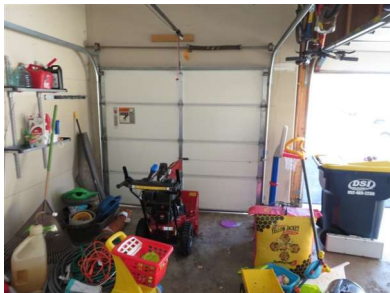
EXPLANATION: A mechanism is not installed, not operable, or not effectively installed on the door between the garage and the house that will permit and assure self-closure, such that the door will close and latch after the door is released from an open position.

NOTE: It may be beyond the scope of the home inspector to determine if a door closer was required or if the requirement was enforced in this jurisdiction at the time the home was built. Whether or not required or enforced, the intent of having a door closer was to help assure that a gas-tight barrier and a fire barrier, was established between the garage and the house.

NOTE: Door closers may present a condition where injury from fingers being pinched in the door are more likely. Be aware of this and take caution.

IMPACT/CONSEQUENCES: A door that connects the house with an attached garage, when it does not close and latch under the control of a suitable door closer or when it is missing, may be considered a safety concern, as fumes and fire from the garage may migrate and spread into the house. A mechanism for door closure when installed correctly, helps ensure the door automatically closes, latches, and seals when the door is released. Adjustments to the door or door hardware may be necessary for the correct operation of the door closer.

RECOMMENDED ACTION: **Safety Concern | Fire and Safety Upgrade Recommendation**


27


LOCATION: Garage Vehicle Door (single door) **SYSTEM:** Exterior

CONDITION: Vehicle door opener operation unsatisfactory. (hold button)

EXPLANATION: The vehicle door opener button must be held in to close the door completely. The home inspector is not required to correct these conditions to evaluate the opener.

NOTE: This condition may prevent the home inspector from fully evaluating the vehicle door.

IMPACT/CONSEQUENCES: The intended safe and correct operation of the door opener could not be verified as the unit failed to operate correctly under normal operating conditions and with installed control devices.

RECOMMENDED ACTION: Adjust, repair, or replace

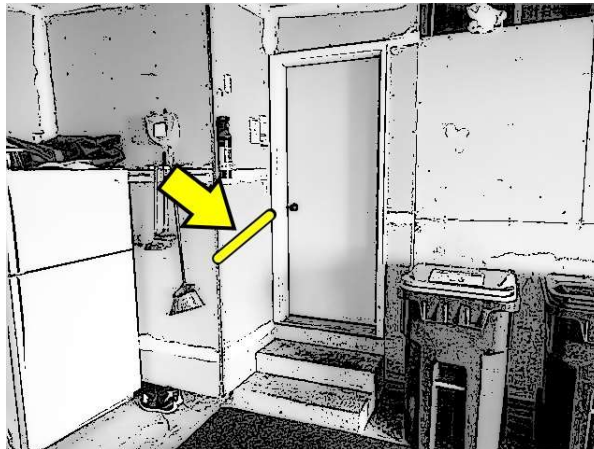
28 **LOCATION:** Garage/House Stairs/Step(s) **SYSTEM:** Exterior**CONDITION:** Garage stair hand railing/guard recommended (**safety upgrade**)**EXPLANATION:** Where handrails are missing or non-conforming there is the potential for slips and falls when traversing the steps with children and the elderly.

Handrails that are "grippable" are recommended on stairs with two or more risers; both sides if stairs are over 44 inches wide, must be 34 - 38 inches above the stair tread nosing, must extend from directly above the bottom riser to directly above the top riser, be continuous for the entire length of a flight of stairs, ends be returned to the wall or terminate in a newel post, have a space of not less than 1½ inches between the handrail and the wall, must support a 200 lb. load, have a circular cross section of 1¼ inches to 2 ⅝ inches or equivalent with 1/8 radius edge (2X4 or other dimension lumber placed on edge or flat is generally not acceptable)

Guards must not be climbable, must be a minimum of 36" high and are generally recommended for any porch, balcony, deck, or other raised floor surface located more than 16 inches above the floor or grade, be at least 34" high from the stair tread nosing and installed on the open side(s) of stairs with a rise of 16 inches+ above the floor or grade, have no openings greater than 4" or 6" at stair riser/tread/guard opening, be able to support a 200 lb. load applied in any direction.

IMPACT/CONSEQUENCES: The primary function of interior railings is to protect people from falling and being injured. Missing railings may result in injury. Where railings appear to be non-conforming, there may be an indication of poor design, construction, or maintenance, such that the railings do not appear to be in a condition that meets its intended function of protecting people from the risk of injury. Failure to correct railing deficiencies is a safety issue, and in some cases may have legal consequences where a person is injured as a result of neglecting to provide adequate safety provisions.

NOTE: Although this may not be required with the observed number of step risers, this condition may still create a difficult or safety concern when traversing the stair(s).

RECOMMENDED ACTION: Recommended Installing, Repairing, or Correcting - **Safety Upgrade**

SUMMARY OF OBSERVED DEFICIENCIES

29



LOCATION: Exterior Front **SYSTEM:** Exterior

CONDITION: Walkway/stairway junction has open gaps, cracks, or seams.

EXPLANATION: Walkway / stairway junction has open gaps, cracks, or seams between the walkway and stairs that may allow water to penetrate and get underneath or between the walkway or stairs which may result in "frost push" causing additional separation, heave, or settlement.

IMPACT/CONSEQUENCES: This condition may promote undesired effects, which may include issues such as moisture problems at the home's foundation, soil erosion, or settling and heaving of the concrete walkway or step. Filling this gap with a nonabsorbent material such as expandable foam to prevent additional frost push is recommended by many professionals. Large gaps may be a SAFETY CONCERN by creating a trip hazard and causing injury. Advice from a Specialist is recommended especially for larger separations.

RECOMMENDED ACTION: Repair | Replace | Consult Specialist



30



LOCATION: Exterior Rear **SYSTEM:** Exterior

CONDITION: Concrete pad has separated from structure

EXPLANATION: The concrete pad at the noted location was observed to have shifted, such that this movement has caused separation from the foundation. Some causes of this condition may be settlement, heave, or frost push.

IMPACT/CONSEQUENCES: Gaps between the pad and structure are susceptible to moisture accumulation and frost expansion which may promote additional separation. The gaps should be properly filled with a nonabsorbent material and caulked. Review by a concrete Specialist for suggestions of remedial action is recommended.

RECOMMENDED ACTION: Recommend Review by a Specialist

SUMMARY OF OBSERVED DEFICIENCIES

31



LOCATION: Exterior Rear **SYSTEM:** Exterior

CONDITION: Concrete pad or landing is sloped towards foundation -

EXPLANATION: A concrete pad or landing has a slope that will result in water flowing towards or pooling at the foundation of the house or garage.

IMPACT/CONSEQUENCES: Concrete pads and landings should be sloped to promote drainage away from the foundation of the house or garage. Water accumulation near the foundation may lead to foundation and basement dampness issues. In some cases, frequent saturation of soils may result in erosion of soils below the footings, and in combination with soil pressure and frost heave, can result in damage to the foundation. Sealing of seams between the concrete pad/landing and structure is recommended. Replacement may have to be considered.

RECOMMENDED ACTION: Repair | Consult Specialist

32



LOCATION: Deck SYSTEM: Exterior

CONDITION: **Exterior stair hand railing/guard is missing or non-conforming**

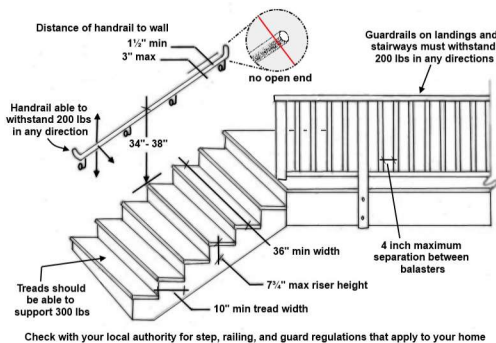
EXPLANATION: Handrails that are an approved dimension and easy to grasp (by adults and children) are recommended on stairs with two or more risers; both sides if stairs are over 48 inches wide or every 48 inches on wider stairs, must be 34 - 38 inches above the stair tread nosing, must extend from directly above the bottom riser to directly above the top riser, be continuous for the entire length of a flight of stairs, ends be returned to the wall or terminate in a newel post, have a space of not less than 1½ inches between the handrail and the wall, must support a 200 lb. load, have a circular cross section of 1¼ inches to 2⅝ inches or equivalent with ⅛ radius edge (2X4 or other dimension lumber placed on edge or flat is not acceptable).

Guards are recommended to be a minimum of 36" high and are required for any porch, balcony, deck, or other raised floor surface located more than 16 inches above the floor or grade, be at least 34" high from the stair tread nosing and installed on the open side(s) of stairs with a rise of 16 inches+ above the floor or grade, have no openings greater than 4" or 6" at stair riser/tread/guard opening, be able to support a 200 lb. load applied in any direction.

Fasteners on all posts (guards and handrails) should be fastened securely using bolts and washers, not lag screws.

IMPACT/CONSEQUENCES: The primary function of interior railings is to protect people from falling and being injured. There is indication of poor design, construction, or maintenance, such that the railings do not appear to be in a condition that meets its intended function of protecting people from the risk of injury. Failure to correct railing deficiencies is a safety issue, and in some cases may have legal consequences where a person is injured as a result of neglecting to provide adequate safety provisions.

RECOMMENDED ACTION: **Safety Concern** - Recommended Installing



SUMMARY OF OBSERVED DEFICIENCIES

33



LOCATION: Deck **SYSTEM:** Exterior

CONDITION: Unprotected wood surfaces (general maintenance)

EXPLANATION: Wood components (decking, railing, guards, or stairs) are observed to be need of paint, sealant, or other protective coating.

IMPACT/CONSEQUENCES: Wood that is not protected may experience accelerated deterioration or damage due to moisture penetration, drying and cracking, damage from freeze/thaw cycles, organic growth, and pest attack. Exterior wood should be monitored closely to ensure the protective finishes remain intact.

NOTE: Proper application of the protective sealant is a labor intensive job. Professionals claim an oil based penetrating sealant offers longer and better protection. Acrylic or latex finishes may not provide the effective long term performance that oil based products offer especially on horizontal surfaces.

RECOMMENDED ACTION: Recommended Maintenance

SUMMARY OF OBSERVED DEFICIENCIES

34



LOCATION: Deck **SYSTEM:** Exterior

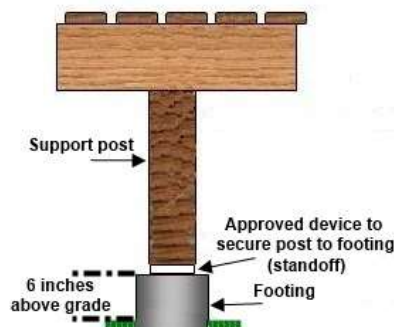
CONDITION: Support column (post) concerning - Not on a footing raised to recommended minimum height

EXPLANATION: One or more support columns (posts) are observed to be; installed into the footing, in direct contact with the soil or close to the soil, or are sitting on a horizontal surface where snow and moisture may have direct and prolonged contact with the support column. Although having the support columns in direct contact with the soil is permitted (if they are approved for ground contact), installing the columns properly secured with approved fasteners and devices to the top of footings that are a minimum of 6 - 8 inches above grade to create an elevated surface and allow drainage away from the bottom of the support columns is recommended. It may not be possible to determine if the columns are approved for ground contact. Although rotting or deterioration may be somewhat prohibited by the "treatment" given to a treated wood column, the bottom of the column may wick moisture up into the column and in our climate it may go through a freeze - thaw cycle, resulting in damage to the support column.

NOTE: It may not be required that the columns be raised above grade, but it is a better and recommended method. Check with the local jurisdiction on current regulations regarding this condition.

IMPACT/CONSEQUENCES: Support columns that are in contact with or close to the ground or horizontal surface will tend to rot or rust at the bottom, as they are in an environment where the lower portion of the column will be damp over extended periods of time. Although some natural and treated woods are more resistant to rot than others, all wood will over time deteriorate when in contact with the ground and soil moisture. In addition to the deterioration concerns of the wood support columns, is the damage that may occur to the bottom of the columns as they wick moisture during colder climates and then go through freeze/thaw cycles which may expand and shred, tear, or "mushroom out" the bottom of the column resulting in ongoing damage and deterioration over time. Metal columns will also deteriorate (rust / corrode) when exposed to damp conditions for extended periods of time. The columns should be periodically monitored for; changes in the condition and loss of integrity. Replacement of the columns, if and when necessary, by a licensed contractor is advised. Note that the columns are crucial to the support structure of the deck, balcony, or stairway and structural failure may occur should the column(s) deteriorate to a degree that they can not bear their intended load.

RECOMMENDED ACTION: Monitor; Replace should severe wood rot, deterioration, or corrosion be observed | Consult Specialist | Recommended Upgrade





35

**LOCATION:** Deck **SYSTEM:** Exterior**CONDITION:** Cantilevered Wall / Deck attachment concerning**EXPLANATION:** The deck is observed to be attached to and supported by a cantilevered wall. This method of supporting the deck is a concern because the cantilevered wall may not have been designed to support the additional weight of the deck. Additional support columns and beams or properly framing the deck around the cantilevered wall are usually recommended and used to support this area of the deck.**IMPACT/CONSEQUENCES:** Improperly configured and supported decks attached to cantilevered walls may over time cause sagging and eventually structural failure of the cantilevered wall. Determining the weight bearing capacity of the cantilevered wall is beyond the scope of the inspector. This condition should be evaluated by a licensed contractor that is familiar with current methods and regulations for deck construction, to assure the deck attachment and support meets the current standards, local jurisdiction requirements, or the actual designed and anticipated load requirements of the deck.**RECOMMENDED ACTION:** Safety Concern | Review | Consult Specialist

36



LOCATION: Exterior Outlets **SYSTEM:** Electrical

CONDITION: Exterior electrical weather resistant outlet cover outdated

EXPLANATION: The outlet cover at the noted location does not appear to meet the current requirements for a safe exterior weather resistant cover. Outlets installed on outdoor locations or locations where moisture can come in contact with the outlet should be installed in an approved weather resistant box with an approved weather resistant cover that provides weatherproof protection when a cord is inserted.

IMPACT/CONSEQUENCES: This condition may expose the outlet to risks including shorting, damage, and deterioration. Outlet covers displaying damage or are ineffective at preventing moisture infiltration should be immediately replaced. This condition is a **safety concern** and repairs should be a priority.

RECOMMENDED ACTION: Safety Concern | Replace | Consult Specialist



outdated outlet recommended outlet

37

LOCATION: Deck **SYSTEM:** Exterior

CONDITION: Support column (post) is out of plumb

EXPLANATION: Columns should be generally plumb to transmit loads vertically to their footings. Structural columns (whether wood, masonry, concrete or steel) should not be out of plumb more than a ratio of 1" in 8'. As well, structural stability of the column would be in doubt where the amount out of plumb exceeds 1/3 of the width or diameter of the column. This may be due to high winds, settlement, deterioration of the footings, or absence of diagonal bracing.

IMPACT/CONSEQUENCES: The ability of the column to bear its intended load, as well as the current and future stability of the column to bear loads, is a concern where a column exhibits either of the above out-of-plumb conditions. A review of the condition by a Specialist is recommended. Alteration of columns should only be done under the direction of a Specialist.

RECOMMENDED ACTION: Consult Specialist

38



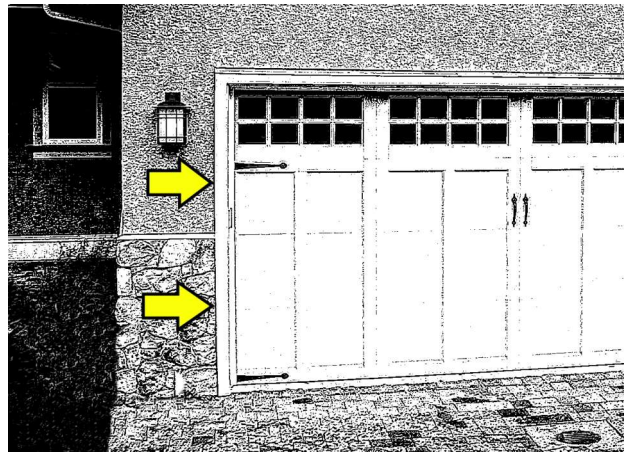
LOCATION: Garage Vehicle Door **SYSTEM:** Exterior

CONDITION: Garage vehicle door trim / wall cover junction requires caulking (general)

EXPLANATION: The seam along the junction of the vehicle door trim and wall cover (brick, stone, stucco, vinyl, engineered siding, etc.) requires caulking to help prevent infiltration of air, moisture, and/or pests.

IMPACT/CONSEQUENCES: Caulking at these seams serves several functions, including preventing air, water, and pest infiltration, and restricting heat loss or gain through the exterior wall. Moisture has the greatest potential for damage; unintended water infiltration into the house can cause significant damage to surfaces and property, and if not corrected, may lead to damage and rot to structural elements. Caulking repairs are required at the noted location(s), and should be performed at the earliest opportunity. Preventative maintenance should include reviewing and repairing exterior caulking at all locations where required.

RECOMMENDED ACTION: Repair | Maintenance | Consult Specialist



39



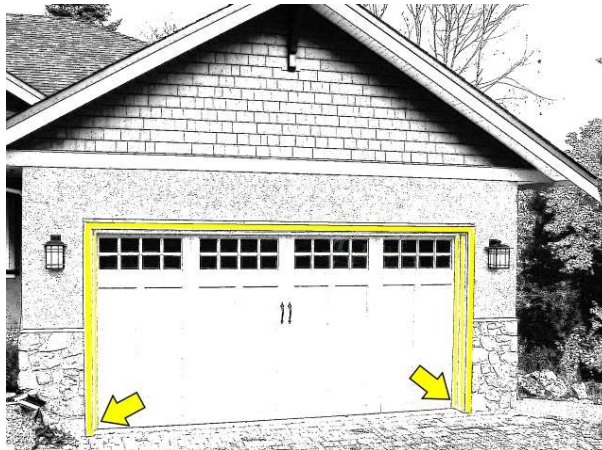
LOCATION: Garage Vehicle Door **SYSTEM:** Exterior

CONDITION: **Vehicle door trim** requires maintenance (paint, caulk, repair)

EXPLANATION: The garage vehicle door trim is in need of maintenance such as an application of protective finish, caulk, or repair. Maintaining the condition of the wood elements of an exterior door trim is an ongoing maintenance activity to prevent damage to wood due to the effects of the sun and weather. Occasionally repair or replacement of the wood components are required. Wood requires periodic finishing to protect against rot. Caulking where trims meet wall covering such as siding and stucco should be caulked to prevent moisture infiltration. The area where the trim or jam meet the threshold or sill should be caulked to prevent wicking, infiltration, damage, and deterioration. Many professionals claim that applying oil based primers prior to applying the finish coat (latex paint) may provide better protection for horizontal wood elements and wood components close to grade.

IMPACT/CONSEQUENCES: Failure to properly maintain exterior finishes will result in deterioration of the trims and wood elements, and left uncorrected, may result in water infiltration and damage to the wall structure or infiltration to interior elements.

RECOMMENDED ACTION: Recommended Maintenance



40



LOCATION: Foundation - Various Locations **SYSTEM:** Exterior

CONDITION: Exterior foundation insulation system is incomplete, not sealed, loose, damaged, or deteriorated

EXPLANATION: The exterior insulation foundation system is observed to be incomplete, unsealed, loose, damaged, or deteriorated and is in need of replacement or repair. Damaged or deteriorated insulation should be repaired or replaced. Open gaps, cracks, and voids should be properly sealed and covered to prevent infiltration of moisture and pests. Foundation insulation coatings or covering should be reapplied or repaired where necessary.

IMPACT/CONSEQUENCES: Areas of foundations with incomplete, unsealed, loose, damaged, or deteriorated insulation coatings or coverings are vulnerable to adverse effects of the weather. The foundation wall insulation may become susceptible to water infiltration and may not be able to perform as expected. The protective coatings that is incomplete, unsealed, loose, damaged, or deteriorated foundation insulation should be replaced, repaired, and/or properly attached to function as intended.

RECOMMENDED ACTION: Repair/Replace

41



LOCATION: Exterior Left Side **SYSTEM:** Exterior

CONDITION: Wall penetration of sump pump drain pipe is not sealed at the exterior wall

EXPLANATION: The pipe should be sealed at the point where they penetrate the exterior wall. Sealing of penetrations through the wall is essential to preventing air, water, and pest infiltration to the home's interior. Where wall penetrations are observed through vinyl siding caulking or sealing with a putty material is most likely not the method the manufacturer recommends. When vinyl siding is present, proper wall boxes used for these types of wall penetrations wall should be installed. These allow for the expansion and contraction associated with vinyl siding.

IMPACT/CONSEQUENCES: Unintended water infiltration into the house can result in significant damage to surfaces and property, and if not corrected, may lead to damage and rot to structural elements. Unintended air infiltration may affect interior air quality and conditioning. Unintended pest entry can result in damage to interior finishes and belongings, and in some cases may present health risks. Corrective action is required to seal all openings through the exterior wall system.

RECOMMENDED ACTION: Repair

42



LOCATION: Exterior Left Side **SYSTEM:** Exterior

CONDITION: Wall penetration of faucet or water supply pipe is not caulked/sealed at exterior wall

EXPLANATION: Gaps at the contact area of faucet or water pipe and the exterior walls should be sealed at the point where they penetrate the exterior wall to prevent water, air and pest infiltration. Where wall penetrations are observed through vinyl siding caulking or sealing with a putty material is most likely not the method the manufacturer recommends. When vinyl siding is present, proper wall boxes used for these types of wall penetrations wall should be installed. These allow for the expansion and contraction associated with vinyl siding.

IMPACT/CONSEQUENCES: Unintended water infiltration into the house can result in significant damage to surfaces and property, and if not corrected, may lead to damage and rot to structural elements. Unintended air infiltration may affect interior air quality and conditioning. Unintended pest entry can result in damage to interior finishes and belongings, and in some cases may present health risks. Corrective action is required to seal all openings through the exterior wall system.

RECOMMENDED ACTION: Repair

43 LOCATION: Exterior Left Side SYSTEM: Exterior

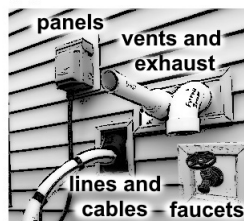
CONDITION: Wall penetration installation non-conforming (vinyl, aluminum, or steel siding)

EXPLANATION: Wall penetrations should be properly installed using the appropriate siding “boxes” or properly installed “J” channel, which allows the siding to perform as the manufacturer intended. Wall penetrations such as gas pipe, exhaust and intake vents, faucets, electrical panels and conduit, cables, dryer vents, sump pump discharge pipe, etc. that are installed through the siding and then caulked to seal around them are non-conforming and may prevent normal expansion and contraction of the siding. When this type of siding is present, proper siding “boxes” or “J” channel for all wall penetrations should be used.

IMPACT/CONSEQUENCES: Buckling of the siding may occur as well as detachment due to the restricted movement caused by non-conforming installations. Unintended pest entry can result in damage to interior finishes and belongings, and in some cases may present health risks. Additionally, infiltration past the wall cover can result in damage to the wall structural components and/or interior wall elements, which may result in conditions that promote mold. Corrective action is required to assure all siding penetrations are done using the correct wall box for each application. A Specialist may be required to perform the necessary action.

RECOMMENDED ACTION: Install Correctly | Consult Specialist

examples of wall penetrations installed with approved boxes


44


LOCATION: Exterior Rear **SYSTEM:** Exterior

CONDITION: Vinyl siding damaged (minor)

EXPLANATION: Damage is noted in the exterior vinyl siding or siding trim components such as cracks or holes.

IMPACT/CONSEQUENCES: If the damage results in exposing underlying materials otherwise protected by the siding, water penetration is a possible consequence. Additionally, damaged exterior wall coverings are cosmetically detracting.

RECOMMENDED ACTION: Repair | Replace

SUMMARY OF OBSERVED DEFICIENCIES

45

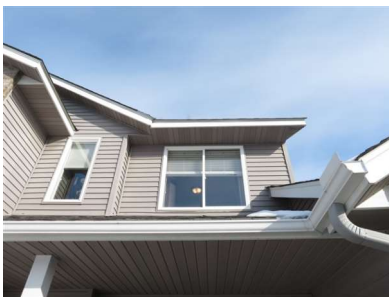
**LOCATION:** Exterior Left **SYSTEM:** Plumbing**CONDITION:** Sump pump drain pipe is **discharging into an underground pipe**

EXPLANATION: The sump pump drain pipe is discharging in a underground pipe near the home's foundation. The purpose of the sump is intended to collect and remove water from the soils near the foundation for discharge at a distance from the home. There is concern that this pipe, not being sealed at the top, having an unknown place of termination, or exposed to the possibility of freezing, may be clogged or damaged below the grade and not operating as intended. This will promote water saturation of soils at the foundation and footings, and may result in moisture-related problems in the basement.

IMPACT/CONSEQUENCES: The sump pump discharge should be installed such that with some degree of assurance that the drainage will occur away from the foundation of the home. Water accumulation near the foundation may lead to foundation and basement dampness issues. This condition should be immediately corrected. Failure to promote proper drainage away from the foundation may result in moisture-related issues to the foundation and basement.

RECOMMENDED ACTION: Recommend Modification | Consult Specialist

46

**LOCATION:** Roof - Front (upper) **SYSTEM:** Roof**CONDITION:** **Gutters not installed at all areas of roof edge**

EXPLANATION: Gutters have not been installed along all of the roof edges (upper and lower roof edges if applicable). Gutters provide a controlled means of collecting and discharging water away from the structure. Full depth 5 inch gutters are recommended.

Gutter guards/screens should be considered where there are trees nearby that may shed leaves that can clog the gutters.

Downspouts should terminate at least 8 ft away from foundations, footings, patios, walkways, and steps. Downspouts from upper roofs should be channeled into the lower gutters.

NOTE: Larger downspouts (3x4 inch), if currently not installed, are recommended as they provide better year round performance.

IMPACT/CONSEQUENCES: Gutters are a key component in the controlled drainage of run-off water away from the home's exterior elements. Roof runoff can deteriorate the siding, foundation, and foundation covering and insulation systems, saturate soils near and/or under driveways, walkways, steps, patios, and footings of decks and stairways causing settlement, cracking, and may eventually cause major deterioration, settlement, or heaving, and can result in basement moisture or leakage issues resulting in organic growth (mold, mildew, fungus, etc.).

RECOMMENDED ACTION: Recommend Installing | Consult Specialist

SUMMARY OF OBSERVED DEFICIENCIES

47 LOCATION: Bathroom - Master, Upper SYSTEM: Insulation/Ventilation

CONDITION: **Exhaust fan may not be providing adequate ventilation.**

EXPLANATION: Bathrooms are one of the most likely places for organic growth to develop. Good ventilation can help to prevent this from happening. The exhaust fan should be able to remove adequate amounts of humid air to prevent mold or mildew growth or formation. Many professionals advise the use of exhaust fans that are rated at least 80 CFM and some ventilation professionals are even recommending 100 CFM fans. Additionally, a wall switch timer or a fan with a built in humidistat is recommended to allow for the fan to be operated for extended periods of time after showering or bathing to adequately dry the walls and ceilings.

The current exhaust fan may not be providing sufficient exhaust flow. Indications of this condition may be that the fan is; old, worn, undersized, or; may have installed in a poor location, may have been incorrectly installed, or the duct is dirty or clogged, or the ducting may be of a style or type (such as ribbed or accordion style) that does not allow for efficient exhausting.

IMPACT/CONSEQUENCES: Failure to correct this problem may affect air quality of the home, and may result in greater than intended indoor humidity which could result in organic growth development such as mold, mildew or fungus. A Specialist may be required to properly complete the necessary repairs.

RECOMMENDED ACTION: Recommended Upgrade | Consult Specialist

48



LOCATION: Exterior Rear SYSTEM: Heating/Cooling

CONDITION: The HRV / Air exchange **exterior vent maintenance recommendation**

EXPLANATION: Regular maintenance of the exterior vent screens is recommended to allow for the free flow of incoming air.

IMPACT/CONSEQUENCES: Clogged exterior vents will negatively affect the performance of the HRV unit. These should be maintained in accordance with the manufacturer's instructions. Monitoring and cleaning should be part of a regular maintenance schedule.

RECOMMENDED ACTION: Recommended Maintenance | Consult Specialist

49



LOCATION: Exterior Rear SYSTEM: Insulation/Ventilation

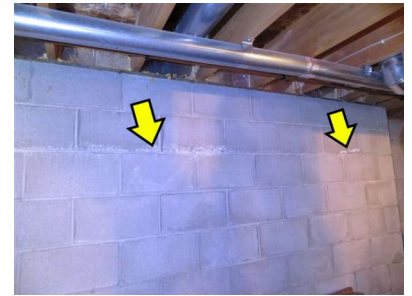
CONDITION: Fresh air intake vent **maintenance recommendation**

EXPLANATION: Air intake openings should be checked regularly for any build up on the screens which may restrict flow.

IMPACT/CONSEQUENCES: When air vents are clogged they may not be able to perform as intended supplying fresh air for proper combustion, and proper indoor air management. Regular cleaning is recommended

RECOMMENDED ACTION: Recommended Maintenance

50



LOCATION: Foundation - Interior Front, Left **SYSTEM:** Structure

CONDITION: Efflorescence is observed on foundation

EXPLANATION: Efflorescence is a white powdery deposit of salts that forms on the surface of the foundation wall. This is an indication of wall dampness, with the leaching of salts being the result of moisture working its way through the foundation wall. Although the wall can be cleaned to remove efflorescence, the causes for this condition need to be addressed before the condition can be eliminated. Causes may include grading, clogged gutters, no gutters, poor performing gutters, or close downspout termination to the foundation.

IMPACT/CONSEQUENCES: Efflorescence is a consequence of moisture drawing out salts in the masonry or concrete, and depositing it on the surface; it is generally powdery-white in appearance. New masonry and concrete is particularly prone to displaying efflorescence in its first year, but this condition should diminish in extent over time. Ongoing and persistent efflorescence is an indication that excessive trapped moisture is working its way through the wall, and should be investigated by a masonry or foundation specialist for evaluation for cause and to establish remedial action. Failure to correct may result in deterioration or damage with potentially expensive repairs.

RECOMMENDED ACTION: Monitor

51



LOCATION: Basement **SYSTEM:** Structure

CONDITION: Indications of past or possibly current water infiltration on concrete floor

EXPLANATION: The examination of the concrete floor, could not ascertain whether the indications of moisture present at the time of inspection, were from a previous condition that has now been corrected or from a current condition that is ongoing or likely to happen again. Indications of current infiltration such as; puddles, wet flooring, etc. or past water infiltration such as; water trail stains, mold, mildew, efflorescence are observed.

IMPACT/CONSEQUENCES: The concrete floor in the area of concern should be monitored over time to ascertain whether there is an active leakage condition. Should a current leak condition exist, water penetration past the exterior wall system or floor may cause significant and costly damage to the structure, interior features, and interior contents of a home. Uncorrected water penetration can lead to mold and rot issues within the structure with possible consequential health effects and costly remedial actions.

RECOMMENDED ACTION: Monitor | Consult Specialist

SUMMARY OF OBSERVED DEFICIENCIES

52



LOCATION: Downspouts - One or More Locations **SYSTEM:** Roof

CONDITION: Downspout below grade or hidden drainage provisions are concerning

EXPLANATION: Where a hidden or below grade drainage system is installed, there is usually no visual way to verify that drainage of water from the downspout into the below grade drain pipe is; not damaged from frost, restricted from debris accumulation, pest nesting, or settlement / heave crushing the drain tile, properly connected, properly sloped, and free flowing away from the foundation, walkway, patio, or driveway during all weather conditions. On older houses, these extensions may be cast iron, clay tile, or asbestos cement piping. On modern houses, the drain tiles below grade are often ABS or PVC plastic.

The disadvantages of below grade drainage systems include:

* It is difficult to see the early indications of nonperformance, since water can discharge below grade and collect, saturating the soil for some time before it is noticed at grade surface.

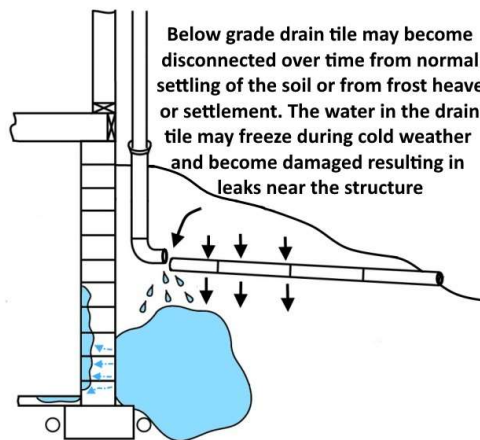
* When pipes do get clogged or collapse below grade, repair or replacement is more expensive, often requiring excavation.

IMPACT/CONSEQUENCES: The absence of proper visible drainage provisions will likely promote water saturation of soils at the foundation and footings, and may result in frost and moisture-related problems with the foundation, basement, walkway, patio, and driveway. In this area of the country, frost can go down a minimum of 4 ft., and has gone to 7 ft. causing the below ground drainage provisions to freeze resulting in damage to drain tiles, frozen and clogged drain tiles, which may cause below grade leaks near the structure. This condition should be closely monitored; where basement dampness or foundation cracks are noted, remedial action is recommended to improve and assure effective drainage will occur.

NOTE: There may not be a good alternative for this condition, so monitor closely for issues associated with moisture such as foundation settling, basement moisture issues, walkways settling or heaving, etc.

Consulting a gutter Specialist is advised to discuss options to address this condition.

RECOMMENDED ACTION: Review | Monitor | Repair | Consult Specialist



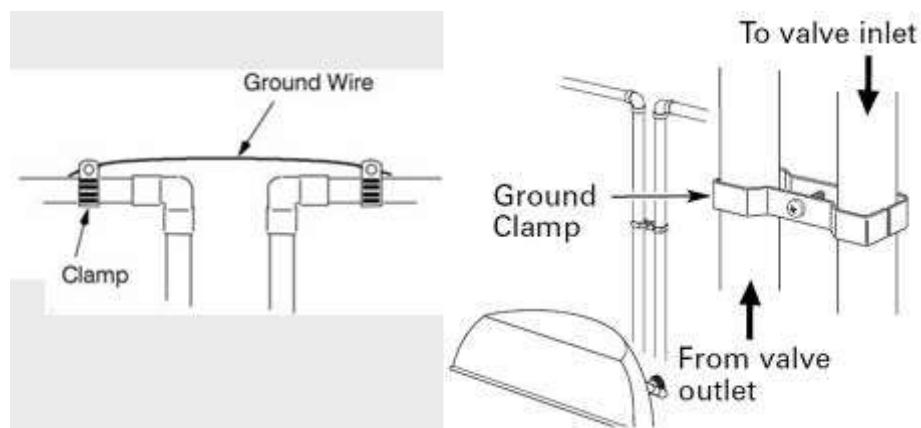
53 LOCATION: Water Conditioner (softener) SYSTEM: Electrical

CONDITION: The bonding jumper wire at the [water conditioner](#) is missing, ineffective, non-conforming, or can not be verified

EXPLANATION: When the water distribution pipes are used to ground the electrical system there must be a continuous connection into the ground where the water pipes enter the home. Common piping configurations at the water conditioner can break this continuous connection. A grounding system jumper wire is used to correct this condition. The grounding jumper wire should attach to the pipes on both sides of the water conditioner or between the pipes of the water conditioner.

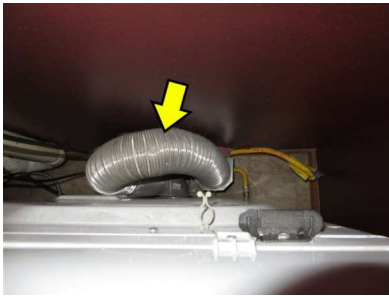
IMPACT/CONSEQUENCES: To assure proper operation of circuit breakers under over-current or short-circuit situations, the point of attachment of the system bonding to its system grounding point must be properly installed and secured. Failure to achieve a secure grounding component for the electrical system may constitute a safety hazard, and may result in damage to electrical components and appliances attached to the home's electrical system. This condition, when present, is a safety concern and should be immediately rectified.

RECOMMENDED ACTION: Safety Concern | Consult Specialist



SUMMARY OF OBSERVED DEFICIENCIES

54

**LOCATION:** Laundry Room **SYSTEM:** Interior**CONDITION:** Clothes dryer vent ducting concerning (ribbed)

EXPLANATION: The dryer vent ducting is recommended to be metal (smooth rigid) and of a uniform diameter to the outside. Too much resistance from “ribbed” style ducting ruins efficiency by extending drying times. With enough resistance, the flow becomes so sluggish that the moisture in the air condenses on the pipes. This condensate attracts lint that sticks to the vent walls. Caked-on lint further impedes airflow and is a fire hazard. Extended run times are also hard on dryers, wearing them out more quickly. And finally, overworked dryers start blowing thermal fuses.

Many local jurisdictions limit the length of a solid-wall sheet metal vent to 14 ft., with only two 90° elbows beyond the one connecting the dryer. Each additional elbow will cost you 2 ft. of overall length. Every pipe-to-pipe joint must be sealed with metal-foil tape, and screws are prohibited.

Many local codes, however, allow up to 25 ft., with two elbows beyond the first. But in these cases, each additional elbow will cost you 8 ft. in length. Accordion-style venting should never be used. Just a few feet of accordion-style vent can add 10 minutes of drying time to a load of bath towels, so there's plenty of incentive to replace it with smooth rigid metal pipe.

IMPACT/CONSEQUENCES: The use of materials other than approved smooth metal dryer vent may create the possibility of a fire hazard and/or may shorten the useful life of this appliance. Seams if taped, should be taped with an approved taping material that can perform well with high temperatures. Non-conforming tape materials may pose a safety concern.

RECOMMENDED ACTION: Safety Concern | Replace



55 LOCATION: Furnace SYSTEM: Heating/Cooling

CONDITION: Drip leg non-conforming - Furnace

EXPLANATION: The function of the drip leg is to catch condensation or sediment in the gas line. The observed drip leg does not appear to meet industry requirements for a gas appliance.

IMPACT/CONSEQUENCES: The absence of a properly installed drip leg may result in poor performance of the furnace. The absence of a drip leg at the furnace should be considered a safety issue requiring immediate remedy. A Specialist may be required to perform the necessary action.

RECOMMENDED ACTION: Safety Concern | Repair | Consult Specialist


56

LOCATION: Laundry Room **SYSTEM:** Interior

CONDITION: Drip leg missing on gas connection. (Dryer)

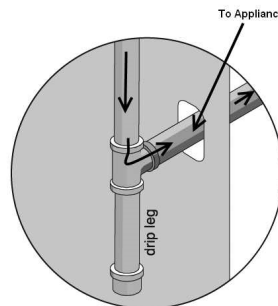
EXPLANATION: The drip leg "T" in the gas line to an appliance is not observed where expected or could not be located in the course of inspection. A drip leg should be installed to help catch contaminants in the gas line.

IMPACT/CONSEQUENCES: The drip leg catches condensation in the gas line before it can cause problems with the operation of the appliance. The absence of a drip leg for all gas appliances should be considered a safety issue requiring immediate remedy.

RECOMMENDED ACTION: Safety Concern | Install | Consult Specialist

Drip leg

the drip leg (or dirt pocket) serves as a collection area for sediment to reduce the chance of clogged gas valves or burners



57 **LOCATION:** Various locations throughout the home **SYSTEM:** Interior

CONDITION: Window unit maintenance recommendation

EXPLANATION: Over time window systems (latching hardware, hinges, channels, tracks, guides, wheels, sashes, and frames) may require periodic cleaning, lubrication, and tightening of the hinge and operating mechanism screws, when present, to prolong the life of the window system and make them easier to operate.

IMPACT/CONSEQUENCES: If periodic cleaning and lubrication is not performed the tracks, channels, hinges, operating mechanisms, latches, guides, and wheels may become restrictive and worn making the windows difficult to open and close resulting in undue stress on the mechanisms, potentially damaging seals of insulated glass, and damaging sashes. Periodic examination, cleaning, and lubricating the tracks, channels, guides, hardware, and wheels should be part of a regular maintenance routine.

RECOMMENDED ACTION: Clean | Perform Regular Maintenance

58 **LOCATION:** Exterior Rear **SYSTEM:** Exterior

CONDITION: Sliding door maintenance recommendation

EXPLANATION: Over time sliding door systems (latching hardware, channels, tracks (door and screen), guides, wheels, and frames) may require periodic cleaning, lubrication, adjustments, and other minor maintenance to prolong the life of the sliding door system and make it easier to operate.

IMPACT/CONSEQUENCES: If periodic cleaning and lubrication is not performed the tracks, channels, operating mechanisms, latches, guides, and wheels may become restrictive and worn making the door difficult to open and close resulting in undue stress on the frame, potentially damaging seals of insulated glass. Periodic examination, cleaning, and lubricating the tracks, channels, guides, hardware, and wheels should be part of a regular maintenance routine.

RECOMMENDED ACTION: Clean | Perform Regular Maintenance

59 **LOCATION:** Kitchen **SYSTEM:** Interior

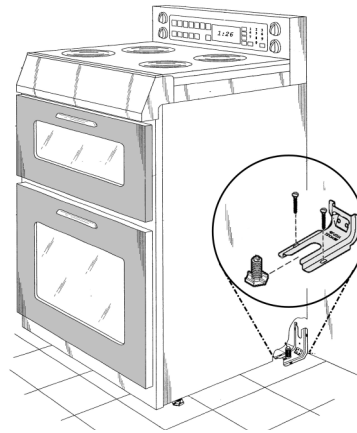
CONDITION: Microwave operation - **NOTIFICATION** (Whirlpool/Maytag)

EXPLANATION: This is a notification specifically for Whirlpool and Maytag microwaves. Although the general operation of these microwaves may appear to perform properly, independent testing has shown that a notable percentage of these may have cold and hot spots. The mechanism that "stirs" the microwaves evenly throughout the interior cabinet apparently does not perform as intended causing high concentrations of microwaves in small areas. This may cause arcing and uneven performance such as areas of over heating or "cold spots" with no heating ability. Additional information regarding this condition is available on the internet.

NOTE: Newer models may not have this condition but because there is no information regarding this condition as it relates to this particular appliance it could not be verified.

IMPACT/CONSEQUENCES: The appliance operation may have not been fully evaluated due to the additional stated condition. It may not be possible at the time of the inspection to determine whether or not this appliance has this condition. The observed conditions may need to be evaluated by an Appliance Specialist.

RECOMMENDED ACTION: Recommend - Awareness of this condition

60 LOCATION: Kitchen SYSTEM: Interior**CONDITION:** Anti-tip device is not installed or not installed correctly (Stove)**EXPLANATION:** The appliance was observed not to have any anti-tip device installed or installed correctly to prevent injury from the stove tipping.**IMPACT/CONSEQUENCES:** The appliance could potentially tip over onto someone or tip and spill hot items causing injury. These anti-tip devices can usually be found in the appliance department at most home improvement stores.**RECOMMENDED ACTION:** Recommended Safety Upgrade**61** LOCATION: Exterior Walls - Beneath Wall Cover SYSTEM: Exterior**CONDITION:** Siding installed without a "house wrap" material or weather resistant barrier**EXPLANATION:** Weather Resistant Barrier (WRB) is the layer of material that is installed between the exterior sheathing and the siding. This importance of this layer is its ability to reduce airflow and prevent moisture travel into the wall cavity. The siding is noted to be installed without a house wrap or weather resistant barrier. Siding has always been designed as an exterior cladding, not a weather resistant barrier. Siding is designed to allow the material underneath it to breathe; therefore, it is not a watertight covering. Although installing siding with a house wrap or other moisture resistive barrier was commonly done for a period because it was not enforced until April 2003, it has always been recommended by the siding manufacturers.**IMPACT/CONSEQUENCES:** To achieve designed performance, siding should be installed over a water-resistive barrier system that includes 1) a continuous water-resistive material and 2) properly integrated flashing around all penetrations and where siding interfaces with other building products such as brick, stone, or stucco. Refer to the manufacturer's instructions for specific product applications and recommendations. If the siding was not installed to current standards, the underlying sheathing and possibly other wall components may not perform as intended to the new building standards. Evaluation by a siding specialist should be considered.**RECOMMENDED ACTION:** Review | Consult Specialist

62



LOCATION: Exterior Left **SYSTEM:** Electrical

CONDITION: Exterior junction box is not weathertight

EXPLANATION: The exterior junction box does not appear to be weathertight. Aspects of the junction box such as the weather strip or gasket, cover, or junction box are damaged, deteriorated, missing or in some manner not sealed as intended to prevent infiltration. Junction boxes installed in outdoor locations or locations where water can come in contact with or infiltrate into the junction box, should be installed using an approved weathertight junction box with a gasket and/or weathertight cover.

IMPACT/CONSEQUENCES: A junction box not installed as a weathertight enclosure, and when in an location where water can enter the box, is subject to shorting, damage, and deterioration. For safety, a suitable box and cover should be installed.

RECOMMENDED ACTION: Safety Concern | Repair, Replace | Consult Specialist

63

LOCATION: Water Heater **SYSTEM:** Plumbing

CONDITION: Drip leg does not meet requirements for a gas appliance - Water Heater

EXPLANATION: The drip leg in the gas line to an appliance is either not present, ineffective, or could not be located or observed in the course of inspection.

IMPACT/CONSEQUENCES: The drip leg catches condensation and other sediment in the gas line before it can cause problems with the performance and safe operation of the appliance. The absence of a drip leg for all gas appliances should be considered a safety issue requiring immediate remedy.

RECOMMENDED ACTION: Safety Concern | Install | Consult Specialist

