

***Property Inspection Report for:  
Mr. & Mrs. Buyer***



***2000 Anystreet  
Anytown, USA 51111***

# Building Inspection Report

2000 Anystreet, Anytown USA

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**Inspection Date:**  
10/22/2009

**Prepared For:**  
Mr. & Mrs. Buyer

**Prepared By:**  
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2-2622

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# Report Overview

## THE HOUSE IN PERSPECTIVE

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This is a well built ranch style townhome that is located on the north side of the city of Anytown. Maintenance on the exterior of the home is lacking somewhat and repairs are needed. The property identification number is posted at the residence and it is visible from the street. The home is located within two hundred foot of a city fire hydrant. As with all homes, ongoing maintenance is required and improvements to the systems of the home will be needed over time. ***The improvements that are recommended in this report are not considered unusual for a home of this age and location.*** Please remember that there is no such thing as a perfect home.

## CONVENTIONS USED IN THIS REPORT

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For your convenience, the following conventions have been used in this report.

**Major Concern:** *a system or component which is considered significantly deficient or is unsafe. Significant deficiencies need to be corrected and, except for some safety items, are likely to involve significant expense.*

**Safety Issue:** *denotes a condition that is unsafe and in need of prompt attention.*

**Repair:** *denotes a system or component which is missing or which needs corrective action to assure proper and reliable function.*

**Improve:** *denotes improvements which are recommended but not required.*

**Monitor:** *denotes a system or component needing further investigation and/or monitoring in order to determine if repairs are necessary.*

**Deferred Cost:** *denotes items that have reached or are reaching their normal life expectancy or show indications that they may require repair or replacement anytime during the next five (5) years.*

Please note that those observations listed under “Discretionary Improvements” are not essential repairs, but represent logical long term improvements.

- For the purpose of this report, it is assumed that the house faces south.

## IMPROVEMENT RECOMMENDATION HIGHLIGHTS / SUMMARY

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The following is a synopsis of the potentially significant improvements that should be budgeted for over the short term. Other significant improvements, outside the scope of this inspection, may also be necessary. Please refer to the body of this report for further details on these and other recommendations.

### MAJOR CONCERNS

#### Furnace

- **Possible Major Concern, Repair, Safety Issue:** The furnace heat exchanger appears to be cracked in two locations. ***This condition is a carbon monoxide safety risk.*** A qualified service technician or utility company representative should be engaged to thoroughly examine the exchanger and make repairs as recommended.

### SAFETY ISSUES

#### Garage

- **Repair, Safety Issue:** The garage door opener did not automatically reverse under resistance to closing. ***There is a serious risk of injury, particularly to children, under this condition.*** The opener may need adjustment.

#### Walkway

- **Repair, Safety Issue:** The walkway presents a trip hazard. This condition should be altered for improved safety.

### Outlets

- **Repair, Safety Issue:** The installation of a ground fault circuit interrupter (GFCI) is recommended at all garage outlets. A GFCI offers increased protection from shock or electrocution.

### REPAIR ITEMS

#### Exterior Walls

- **Repair:** All exterior wall penetrations for the utility lines should be well sealed to prevent moisture penetration behind the siding material.
- **Repair:** Localized rot was observed in the siding under the north bow window in the living room and at the chimney chase. Following repair of the damaged areas (which should be combined with exterior painting/maintenance) proper maintenance of the siding and control of water from roof or surface runoff can avoid further damage.

#### Lot Drainage

- **Repair:** The concrete slab at the basement doorway is sloped towards the house and water was pooling at the foundation. This should be repaired to avoid water penetration to the interior of the basement.

#### Lights

- **Repair:** The light fixture in the living room has been removed and there are exposed wires. This light should be replaced or the wires properly terminated.

### ITEMS TO MONITOR

#### Foundation

- **Monitor:** Larger than typical foundation settlement cracking was observed on the west wall of the furnace room. The amount of movement which has occurred is not likely to have caused other damage to the structure but this area should be monitored. If additional movement occurs, more costly repairs might be necessary. The rate of movement cannot be predicted during a one-time inspection.

#### Furnace

- **Monitor:** Given the age of the furnace, it may be near the end of its useful life. It will require a higher level of maintenance, and may be more prone to major component breakdown. Predicting the frequency or time frame for repairs on any mechanical device is virtually impossible. You should reserve funds to be ready to purchase a new furnace.

#### Central Air Conditioning

- **Monitor:** As is not uncommon for homes of this age and location, the air conditioning system is relatively old. It will require a higher level of maintenance, and may be more prone to major component breakdown. Predicting the frequency or time frame for repairs on any mechanical device is virtually impossible. If the compressor fails, or if breakdowns become chronic, replacing the entire system may be more cost-effective than continuing to undertake repairs.

## THE SCOPE OF THE INSPECTION

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All components designated for inspection in the ASHI® Standards of Practice are inspected, except as may be noted in the "Limitations of Inspection" sections within this report.

**It is the goal of the inspection to put a home buyer in a better position to make a buying decision. Not all improvements will be identified during this inspection. Unexpected repairs should still be anticipated. The inspection should not be considered a guarantee or warranty of any kind.**

**This inspection is visual only. A representative sample of building components are viewed in areas that are accessible at the time of the inspection. No destructive testing or dismantling of building components is performed.**

Please refer to the pre-inspection contract for a full explanation of the scope of the inspection.

### WEATHER CONDITIONS

Wet weather conditions prevailed at the time of the inspection.

The estimated outside temperature was 39 degrees F.

### RECENT WEATHER CONDITIONS

Wet weather conditions have been experienced in the days leading up to the inspection.

# Structure

## DESCRIPTION OF STRUCTURE

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<b>Foundation:</b>	•Concrete Block •Basement Configuration•80% of Foundation Was Not Visible
<b>Columns:</b>	•Steel
<b>Floor Structure:</b>	•Wood Joist
<b>Wall Structure:</b>	•Wood Frame
<b>Ceiling Structure:</b>	•Truss
<b>Roof Structure:</b>	•Trusses •Plywood Sheathing

## STRUCTURE OBSERVATIONS

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### Positive Attributes

The construction of the home is good quality. The materials and workmanship, where visible, are good. The visible joist spans appear to be within typical construction practices. The inspection did not discover evidence of substantial structural movement.

### General Comments

No major defects were observed in the accessible structural components of the house. Typical minor flaws were detected in the structural components of the building. The foundation walls are constructed with 8x8x16 inch blocks. The floor system consists of 2x10's spaced sixteen inches on center. The floor structure is supported with steel beams and columns. The exterior walls are constructed with 2x4's a standard building practice. The attic access is located in the garage ceiling. The attic was inspected by walking on the bottom cords of the trusses. The roof is a gable style roof and it is constructed with a combination of 2x4 and 2x6 engineered trusses spaced twenty four inches on center. The sheathing employed on this roof is plywood.

## RECOMMENDATIONS / OBSERVATIONS

### Foundation

- **Monitor:** Larger than typical foundation settlement cracking was observed on the west wall of the furnace room. The amount of movement which has occurred is not likely to have caused other damage to the structure but this area should be monitored. If additional movement occurs, more costly repairs might be necessary. The rate of movement cannot be predicted during a one-time inspection. (See photo's #1 and 2)
- **Monitor:** Common minor settlement cracks were observed in the foundation walls on the east wall of the furnace room. This implies that some structural movement of the building has occurred. Cracks of this type should be watched for any sign of additional movement. In the absence of any sign of ongoing movement, repair should not be necessary.

### Floors

- **Monitor:** Minor unevenness was observed in the floor structure in the master bathroom. This condition is common. It may be the result of the materials, framing design, installation methods and aging of the building. There was not evidence of need for immediate, costly repair.
- **Repair:** Floor joists are notched and or cut under the bathrooms. This weakens the joist and risks structural damage; repairs or additional support are needed. (See photo #3)

### Exterior Walls

- **Monitor:** Common minor shear cracks were observed on the west exterior walls of the garage. This implies that structural movement has occurred. The location, size, shape of these cracks is common. The inspection did not find evidence of significant movement requiring immediate major repairs. (See photo #4)

### Roof

- **Monitor:** Some minor roof sheathing sags were observed on the north and south slopes from the attic side. This is common where prefabricated roof trusses are spaced two feet apart, allowing sagging between trusses. Additional support may be needed when re-roofing.

## LIMITATIONS OF STRUCTURE INSPECTION

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As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- Structural components concealed behind finished surfaces could not be inspected.
- Only representative samplings of visible structural components were inspected.
- Furniture and/or storage restricted access to some structural components.
- Engineering or architectural services such as calculation of structural capacities, adequacy, or integrity are not part of a home inspection.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

# Roofing

## DESCRIPTION OF ROOFING

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<b>Roof Covering:</b>	•Asphalt Shingle
<b>Roof Flashings:</b>	•Metal
<b>Chimneys:</b>	•Metal below siding
<b>Roof Drainage System:</b>	•Aluminum •Downspouts discharge above grade
<b>Skylights:</b>	•Curb-Type
<b>Method of Inspection:</b>	•Walked on roof

## ROOFING OBSERVATIONS

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### Positive Attributes

The roof coverings are to be in generally good condition. During re-roofing, it appears that the old roofing materials were removed before the installation of the existing roofing materials. Better than average quality materials have been employed as roof coverings.

### General Comments

In all, the roof coverings show evidence of normal wear and tear for a home of this age. There is only one layer of shingles on the home at this time. The roofing material employed is a three tab composition style of shingle. This roof has the appearance of a roof that is approximately ten to twelve years old. The typical life span of this type of roofing is fifteen to twenty years. There are three to five years of life remaining in this roof. The gutters and downspouts are in relatively good condition and appear to be performing as designed.

## RECOMMENDATIONS / OBSERVATIONS

### Sloped Roofing

- **Monitor:** The roofing is in good condition. This roofing is wearing at uneven rates. The sides of the roof exposed to most sunlight wear more quickly than more shaded areas. Early repair or replacement may be needed in some areas prior to replacing the entire roof covering.
- **Repair:** The tree branches at the southwest corner of the garage should be trimmed away from the roof line a minimum of four foot to avoid damage to the roofing materials.

### Flashings

- **Repair:** The clearance of the siding at the flashing at the chimney is insufficient. This condition leaves the siding vulnerable to rot. This detail is usually repaired when siding needs repair or replacement or when re-roofing work is performed. (See photo #5)

### Gutters & Downspouts

- **Repair:** The gutters at the chimney require cleaning to avoid spilling roof runoff around the building – a potential source of water entry or water damage.
- **Repair:** The downspout(s) at the north slope should discharge water at least five (5) feet from the house. Storm water should be encouraged to flow away from the building at the point of discharge.

### Discretionary Improvements

Covering the gutters with a protective mesh may help to avoid congestion with leaves and debris.

## LIMITATIONS OF ROOFING INSPECTION

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As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- Not all of the underside of the roof sheathing is inspected for evidence of leaks.
- Evidence of prior leaks may be disguised by interior finishes.
- Estimates of remaining roof life are approximations only and do not preclude the possibility of leakage. Leakage can develop at any time and may depend on rain intensity, wind direction, ice build up, and other factors.
- Antennae, chimney/flue interiors which are not readily accessible are not inspected and could require repair.
- Roof inspection may be limited by access, condition, weather, or other safety concerns.
- The roof surface was wet. This condition can restrict a proper assessment of the condition of the roofing materials.
- Unfavorable weather restricted the inspection of the roofing system.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

# Exterior

## DESCRIPTION OF EXTERIOR

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<b>Wall Covering:</b>	•Color Lok Siding •Hardboard
<b>Eaves, Soffits, and Fascias:</b>	•Aluminum
<b>Exterior Doors:</b>	•Metal •Sliding Glass
<b>Window/Door Frames and Trim:</b>	•Metal-Covered
<b>Entry Driveways:</b>	•Concrete
<b>Entry Walkways and Patios:</b>	•Concrete
<b>Porches, Decks, Steps, Railings:</b>	•Concrete •Treated Wood
<b>Overhead Garage Door(s):</b>	•Wood •Automatic Opener Installed
<b>Surface Drainage:</b>	•Graded Away From House
<b>Retaining Walls:</b>	•None
<b>Fencing:</b>	•None

## EXTERIOR OBSERVATIONS

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Window frames are clad, for the most part, with a low maintenance material. The aluminum soffits and fascia are a low-maintenance feature of the exterior of the home. There is no significant wood/soil contact around the perimeter of the house, thereby reducing the risk of insect infestation or rot. The decking appears to be constructed from pressure treated wood. The garage appears to be fully insulated. The garage completely finished. Freeze resistant hose bibs (exterior faucets) have been installed.

### General Comments

The exterior of the home has lacked some maintenance; repairs are needed. The siding material employed on this home is a product known as Color Lok. This type of siding material has a history of failure and there has been a class action law suit filed against the manufacturer. Additional information regarding this action can be found at [www.masoniteclaims.com](http://www.masoniteclaims.com). This type of siding material is susceptible to moisture and caulking, paint and keeping vegetation away from this material is important to the longevity of the product.

## RECOMMENDATIONS / OBSERVATIONS

### Exterior Walls

- **Monitor:** Common minor cracks were observed on the exterior walls of the house. This implies that structural movement has occurred. The location, size, shape of these cracks is common. The inspection did not find evidence of significant movement requiring immediate major repairs.
- **Repair:** All exterior wall penetrations for the utility lines should be well sealed to prevent moisture penetration behind the siding material.
- **Repair:** Localized rot was observed in the siding under the north bow window in the living room and at the chimney chase. Following repair of the damaged areas (which should be combined with exterior painting/maintenance) proper maintenance of the siding and control of water from roof or surface runoff can avoid further damage. (See photo #5, 6 . 7 and 8)
- **Repair:** The siding material is delaminating (coming apart) in various locations. Localized repairs, replacement and/or painting may extend the life of the siding. Wholesale replacement may eventually be necessary – a significant expense which can be deferred when only limited areas of damage are found.(See photo's #9, 10 and 11)

### Exterior Eaves

- **Repair:** Tree branches at the south west corner should be trimmed away from the house.

### Windows/Doors

- **Repair:** The windows/Doors require caulking in various locations.

### Garage

- **Repair, Safety Issue:** The garage door opener did not automatically reverse under resistance to closing. *There is a serious risk of injury, particularly to children, under this condition.* The opener may need adjustment.
- **Monitor:** The garage floor slab has typical cracks usually the result of shrinkage and/or settling of the slab. Cracks more than 1/8" high could present a trip hazard.

### Lot Drainage

- **Repair:** The grading at the west side of the home should be improved to promote the flow of storm water away from the house. This can often be accomplished by the addition of top soil. The ground should slope away from the house at a rate of one inch per foot for at least the first ten feet. At least eight (8) inches of clearance should be maintained between soil level and the bottom of exterior wall siding.
- **Repair:** The concrete slab at the basement doorway is sloped towards the house and water was pooling at the foundation. This should be repaired to avoid water penetration to the interior of the basement. (See photo #12)

### Driveway

- **Monitor:** The soil below the driveway has settled and/or heaved. The resulting cracks should be kept sealed to prevent water penetration below the slab. Persisting movement may result in the need for resurfacing.

### Walkway

- **Repair, Safety Issue:** The walkway presents a trip hazard. This condition should be altered for improved safety.

### Landscaping

- **Repair:** Tree branches should be trimmed away from the house to avoid damage to the building.
- **Repair:** Vegetation growing on or near exterior walls should be kept trimmed away from siding, window trims, and the eaves a minimum of twelve inches to reduce risk of insect and water damage.

## LIMITATIONS OF EXTERIOR INSPECTION

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As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- A representative sample of exterior components was inspected rather than every occurrence of components.
- The inspection does not include an assessment of geological, geotechnical, or hydrological conditions, or environmental hazards.
- Screening, shutters, awnings, or similar seasonal accessories, fences, recreational facilities, outbuildings, seawalls, break-walls, docks, erosion control and earth stabilization measures are not inspected unless specifically agreed-upon and documented in this report.
- Storage in the garage restricted the inspection.
- Interior finishes and/or insulation restricted the inspection of the garage.
- Access below decks and/or porches was extremely limited.
- Unfavorable weather restricted the inspection of the roofing system.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

# Electrical

## DESCRIPTION OF ELECTRICAL

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<b>Size of Electrical Service:</b>	•120/240 Volt Main Service - Service Size: 150 Amps
<b>Service Drop:</b>	•Underground
<b>Service Entrance Conductors:</b>	•2/0 Aluminum
<b>Service Equipment &amp; Main Disconnects:</b>	•Main Service Rating 150 Amps •Breakers •Located: Main Panel
<b>Service Grounding:</b>	•Copper •Ground Rood Connection
<b>Service Panel &amp; Over current Protection:</b>	•Panel Rating: 150 Amp •Breakers •Located: West Wall of Garage
<b>Sub-Panel(s):</b>	•None Visible
<b>Distribution Wiring:</b>	•Copper
<b>Wiring Method:</b>	• Non-Metallic Cable "Romex"
<b>Switches &amp; Receptacles:</b>	•Grounded
<b>Ground Fault Circuit Interrupters:</b>	•Bathroom(s) •Exterior •Garage •Kitchen
<b>Smoke Detectors:</b>	•Present

## ELECTRICAL OBSERVATIONS

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### Positive Attributes

The size of the electrical service is sufficient for typical single family needs. The electrical panel is well arranged and all fuses/breakers are properly sized. Generally speaking, the electrical system is in good order. All outlets and light fixtures that were tested operated satisfactorily. The distribution of electricity within the home is good. All 3-prong outlets that were tested were appropriately grounded. Ground fault circuit interrupter (GFCI) devices have been provided in some areas of the home. These devices are extremely valuable, as they offer an extra level of shock protection. All GFCI's that were tested responded properly. Dedicated 220 volt circuits have been provided for all 220 volt appliances within the home. All visible wiring within the home is copper. This is a good quality electrical conductor.

### General Comments

Inspection of the electrical system revealed the need for typical, minor repairs. Although these are not costly to repair, they should be high priority for safety reasons. ***Unsafe electrical conditions represent a shock hazard.*** A licensed electrician should be consulted to undertake the repairs recommended below.

## RECOMMENDATIONS / OBSERVATIONS

### Outlets

- **Repair, Safety Issue:** The installation of a ground fault circuit interrupter (GFCI) is recommended at all garage outlets. A GFCI offers increased protection from shock or electrocution.

### Lights

- **Repair:** The light fixture in the living room has been removed and there are exposed wires. This light should be replaced or the wires properly terminated. (See photo #13)

## **LIMITATIONS OF ELECTRICAL INSPECTION**

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As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- Electrical components concealed behind finished surfaces are not inspected.
- Only a representative sampling of outlets and light fixtures were tested.
- Furniture and/or storage restricted access to some electrical components which may not be inspected.
- The inspection does not include remote control devices, alarm systems and components, low voltage wiring, systems, and components, ancillary wiring, systems, and other components which are not part of the primary electrical power distribution system.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

# Heating

## DESCRIPTION OF HEATING

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<b>Energy Source:</b>	•Gas
<b>Heating System Type:</b>	•Forced Air Furnace •Manufacturer: York
	•Serial Number: EKWM429575 •Model Number: P3USD12N10501B
<b>Vents, Flues, Chimneys:</b>	•Metal-Multi Wall
<b>Heat Distribution Methods:</b>	•Ductwork
<b>Other Components:</b>	•Humidifier

## HEATING OBSERVATIONS

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### Positive Attributes

Heating a home with this type of heating system should be relatively economical. Adequate heating capacity is provided by the system. Heat distribution within the home is adequate.

### General Comments

This furnace is approximately twenty years old. The average life expectancy of a gas forced air furnace is twenty to twenty five years. This system is approaching the end of its normal life span. The heat exchangers were examined using a one inch mirror and a flashlight. The filter employed on this furnace measures 16x25x1 inch and this type of filter should be changed on a monthly basis. The humidifier is an Aprilaire Model 224 and this system should be cleaned and serviced annually after each heating season. The furnace responded to the thermostat as designed at the time of the inspection. Annual servicing of the heating system is recommended to ensure safe reliable heat.

## RECOMMENDATIONS / OBSERVATIONS

### Furnace

- **Possible Major Concern, Repair, Safety Issue:** The furnace heat exchanger appears to be cracked in two locations. *This condition is a carbon monoxide safety risk.* A qualified service technician or utility company representative should be engaged to thoroughly examine the exchanger and make repairs as recommended. (See photo #14 and 15)

### Supply Air Ductwork

- **Improve:** Duct cleaning is recommended every five to six years.

### Return Air Ductwork

- **Monitor:** No return air vent is visible in the basement bedroom. Installing a return air vent in this location is not critical; however, it would improve heat distribution, and facilitate better cooling (if air conditioning is utilized). Maintaining a ¾ inch space between the bottom of the entry doors and the floor coverings will aid in the movement of air in this room.

### Combustion / Exhaust

- **Repair:** The burner shows evidence of corrosion. This condition should be evaluated by a qualified licensed heating technician to assure reliable operation.

## LIMITATIONS OF HEATING INSPECTION

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As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- The adequacy of heat supply or distribution balance is not inspected.
- The interior of flues or chimneys which are not readily accessible are not inspected.
- The furnace heat exchanger, humidifier, or dehumidifier, and electronic air filters are not inspected.
- Solar space heating equipment/systems are not inspected.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

# Cooling / Heat Pumps

## DESCRIPTION OF COOLING / HEAT PUMPS

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**Energy Source:** •Electricity •240 Volt Power Supply  
**Central System Type:** •Air Cooled Split System Central Air Conditioning •Manufacturer: York  
•Serial Number: MLWM503317 •Model Number: H1CB030506A

## COOLING / HEAT PUMPS OBSERVATIONS

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### Positive Attributes

The capacity and configuration of the system should be sufficient for the home. The location of the return air vents is well suited to air conditioning.

### General Comments

The air conditioning compressor is located on the north side of the home. This system is approximately twenty years old. The average life expectancy of an air conditioning compressor is ten to fifteen years. This system has exceeded its normal life span. The cooling system was not operated as the exterior temperature was below sixty degrees at the time of the inspection. Operating an air conditioner with low exterior temperatures could cause damage to the compressor. Annual servicing of the cooling system is recommended.

## RECOMMENDATIONS / OBSERVATIONS

### Central Air Conditioning

- **Monitor:** As is not uncommon for homes of this age and location, the air conditioning system is relatively old. It will require a higher level of maintenance, and may be more prone to major component breakdown. Predicting the frequency or time frame for repairs on any mechanical device is virtually impossible. If the compressor fails, or if breakdowns become chronic, replacing the entire system may be more cost-effective than continuing to undertake repairs.
- **Monitor:** The fins of the outdoor portion of the air conditioning system were observed to be damaged. This condition can reduce the efficiency of the system.

### Supply Air Ductwork

- **Improve:** Duct cleaning is recommended every five to six years.

### Return Air Ductwork

- **Monitor:** No return air vent is visible in the basement bedroom. Installing a return air vent in this location is not critical; however, it would improve the distribution of cool air. Maintaining a  $\frac{3}{4}$  inch space between the bottom of the entry doors and the floor coverings will aid in the movement of air in this room.

## LIMITATIONS OF COOLING / HEAT PUMPS INSPECTION

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As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- Window mounted air conditioning units are not inspected.
- The cooling supply adequacy or distribution balance are not inspected.
- The air conditioning system could not be tested as the outdoor temperature was below 60 degrees F.
- The system was not tested.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

# Insulation / Ventilation

## DESCRIPTION OF INSULATION / VENTILATION

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<b>Attic Insulation:</b>	•R30 Loose Rockwool in Main Attic
<b>Roof Cavity Insulation:</b>	•None Visible
<b>Exterior Wall Insulation:</b>	•Not Visible
<b>Basement Wall Insulation:</b>	•Not Visible in the Finished Areas •None Visible in the Unfinished Areas
<b>Floor Cavity Insulation:</b>	•None Visible
<b>Vapor Retarders:</b>	•Unknown
<b>Roof Ventilation:</b>	•Roof Vents •Soffit Vents with Baffles
<b>Exhaust Fan/vent Locations:</b>	•Bathroom •Dryer

## INSULATION / VENTILATION OBSERVATIONS

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### Positive Attributes

This is a well insulated home.

### General Comments

Caulking and weather-stripping around doors, windows and other exterior wall openings will help to maintain weather tightness and reduce energy costs. Rooms that extend over unheated areas tend to be cooler than other areas of the home during winter months. During this cursory, visual review of insulation levels within the home, no Urea Formaldehyde Foam Insulation (UFFI) was observed. This observation does not represent a guarantee or warranty of any kind. In fact, accurately ascertaining insulation types and levels can only be confirmed by dismantling the home and then performing laboratory analysis on any substances not visually identifiable. This is beyond the scope of this inspection. More sophisticated inspections and testing are available if you have special concerns regarding Urea Formaldehyde Foam Insulation.

## RECOMMENDATIONS / ENERGY SAVING SUGGESTIONS

### Attic / Roof

- **Improve:** The attic access hatch should be better insulated.
- **Repair:** Bathroom exhaust vent pipes should be insulated and vented to the building exterior. The main floor are bath vents are currently vented to the attic space. (See photo's #16 and 17)

### Floors

- **Monitor:** Insulation could be added, if the floors prove to be cool.

### Basement

- **Improve:** During any basement refinishing or renovation plans, it would be wise to add wall insulation. It is also recommended that a moisture barrier be provided between the finished walls and the foundation walls, and that an air/vapor barrier be installed on the warm air side of the insulation.
- No access was gained to the wall cavities of the home.

## LIMITATIONS OF INSULATION / VENTILATION INSPECTION

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As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- Insulation/ventilation type and levels in concealed areas are not inspected. Insulation and vapor barriers are not disturbed and no destructive tests (such as cutting openings in walls to look for insulation) are performed.
- Potentially hazardous materials such as Asbestos and Urea Formaldehyde Foam Insulation (UFFI) cannot be positively identified without a detailed inspection and laboratory analysis. This is beyond the scope of the inspection.
- An analysis of indoor air quality is not part of our inspection unless explicitly contracted-for and discussed in this or a separate report.
- Any estimates of insulation R values or depths are rough average values.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

# Plumbing

## DESCRIPTION OF PLUMBING

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<b>Water Supply Source:</b>	•Public Water Supply
<b>Service Pipe to House:</b>	•Plastic
<b>Main Water Valve Location:</b>	•Front Wall of Basement
<b>Interior Supply Piping:</b>	•Copper
<b>Waste System:</b>	•Public Sewer System
<b>Drain, Waste, &amp; Vent Piping:</b>	•Plastic
<b>Water Heater:</b>	•Gas •Manufacturer: A.O. Smith •Approximate Capacity (in gallons): 38 •Serial Number: G06A050427
<b>Fuel Shut-Off Valves:</b>	•Natural Gas Main Valve at the Meter on the West Exterior Wall
<b>Other Components:</b>	•Sprinkler System

## PLUMBING OBSERVATIONS

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### Positive Attributes

The plumbing system is in generally good condition. The piping system within the home, for both supply and waste, is a good quality system. The water pressure supplied to the fixtures is above average. Only a slight drop in flow was experienced when two fixtures were operated simultaneously. The water heater is a relatively new unit. As the typical life expectancy of water heaters is 7 to 12 years, this unit should have several years of remaining life.

### General Comments

The plumbing system requires some typical minor improvements. The water heater is only three years old and has several years of serviceable life remaining. The water heater temperature should be set such that accidental scalding is minimized. Families with small children should be especially aware of this. It is recommended that two gallons of water be flushed from the bottom of the water heater every four to six weeks in an attempt to remove any sediment that is resting on the bottom of the water heater tank. The visible gas lines were checked for leaks using a TIF 8800 Gas Detector; no leaks were noted at the time of the inspection. The current owner should be consulted to determine if the sprinkler system has been winterized for the year.

## RECOMMENDATIONS / OBSERVATIONS

### Water Heater

- **Repair:** A “drip leg” is normally required for gas water heater connections. This should be investigated.

### Gas Piping

- **Repair:** A “drip leg” is normally required for gas furnace connections. This should be investigated.

### Supply Plumbing

#### Fixtures

- **Monitor:** Mineral build up was observed at faucets. This may suggest “hard” water. Continued build up at faucets and within pipes could affect the performance of the supply plumbing system. Water conditioning equipment could be installed. This situation should be monitored.
- **Monitor:** The discharge of the exhaust fan in the basement bathroom is suspect. This should be further investigated.

## LIMITATIONS OF PLUMBING INSPECTION

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As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions:

- Portions of the plumbing system concealed by finishes and/or storage (below sinks, etc.), below the structure, or beneath the ground surface are not inspected.
- Water quantity and water quality are not tested unless explicitly contracted-for and discussed in this or a separate report.
- Clothes washing machine connections are not inspected.
- Interiors of flues or chimneys which are not readily accessible are not inspected.
- Water conditioning systems, solar water heaters, fire and lawn sprinkler systems, and private waste disposal systems are not inspected unless explicitly contracted-for and discussed in this or a separate report.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

# Interior

## DESCRIPTION OF INTERIOR

---

<b>Wall And Ceiling Materials:</b>	•Drywall •Suspended Tile
<b>Floor Surfaces:</b>	•Carpet •Tile •Vinyl/Resilient •Wood Laminate •Concrete
<b>Window Type(s) &amp; Glazing:</b>	•Casement •Fixed Pane •Double Glazed
<b>Doors:</b>	•Wood-Hollow Core •Metal •Sliding Glass •Storm Door(s)•Pocket Doors

## INTERIOR OBSERVATIONS

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### General Condition of Interior Finishes

On the whole, the interior finishes of the home are in average condition. Typical flaws were observed in some areas.

### General Condition of Windows and Doors

The majority of the doors and windows are good quality.

### General Condition of Floors

The floors of the home are relatively level and walls are relatively plumb.

## RECOMMENDATIONS / OBSERVATIONS

### Wall / Ceiling Finishes

- **Monitor:** Minor cracks were noted.
- **Monitor:** Typical drywall flaws were observed in the ceiling of the north bedroom.(See photo #18)
- **Monitor:** Damage to the interior finish was observed in the closet of the basement bedroom.

### Floors

- **Monitor:** The carpet is stained in the three season porch from what appears to be past water penetration. This area should be monitored for moisture and repairs made as needed. There was no water penetration in these areas on the day of the inspection.. (See photo's #20 and 21)
- **Monitor:** The carpet is stained in various locations.
- **Repair:** The trim is loose in the closet of the basement bedroom.

### Windows

- **Monitor:** Water staining was observed below the window sill(s) in the closet of the basement bedroom. Caulking should be improved as a first step. Refer also to the Exterior section of this report. (See photo #19)

### Doors

- **Repair:** Doors should be trimmed or adjusted as necessary to latch properly.
- **Improve:** Missing or damaged door stops should be replaced to avoid wall and door hardware damage.
- **Improve:** The sliding glass door to the three season porch could be improved to operate freely.

### Cabinets

- **Repair:** Damaged or inoperative cabinet drawers in the north bedroom should be repaired.

### Basement Leakage

- **Monitor:** The basement shows evidence of past moisture penetration.(See photo's #22 and 23) *It should be understood that it is impossible to predict the severity or frequency of moisture penetration on a one-time visit to a home.* Virtually all basements exhibit signs of moisture penetration and virtually all basements will indeed leak at some point in time. The visible evidence is not unusual for a home of this age, construction and location. Further monitoring of the foundation will be required to determine what improvements, if any, will be required. Basement leakage rarely affects the structural integrity of a home.

The vast majority of basement leakage problems are the result of insufficient control of storm water at the surface. The ground around the house should be sloped to encourage water to flow away from the foundations. Gutters and downspouts should act to collect roof water and drain the water at least five (5) feet from the foundation or into a functional storm sewer. Downspouts that are clogged or broken below grade level, or that discharge too close to the foundation are the most common source of basement leakage. Please refer to the Roofing and Exterior sections of the report for more information.

In the event that basement leakage problems are experienced, lot and roof drainage improvements should be undertaken as a first step. Please beware of contractors who recommend expensive solutions. Excavation, damp-proofing and/or the installation of drainage tiles should be a last resort. In some cases, however, it is necessary. Your plans for using the basement may also influence the approach taken to curing any dampness that is experienced.

- **Monitor:** It is very common for shrinkage and/or settling cracks to develop in foundation walls. It is also common for these cracks to leak. If leakage is experienced, improve lot drainage adjacent to the crack. If leakage persists, various methods of crack repair are available. These include interior patching with an epoxy resin or hydraulic cement and exterior repairs after excavation. The exterior repair, although more expensive, is more often successful in eliminating leakage.

### Environmental Issues

- **Monitor:** Radon gas is a naturally occurring gas that is invisible, odorless and tasteless. A danger exists when the gas percolates through the ground and enters a tightly enclosed structure (such as a home). Long term exposure to high levels of radon gas can cause cancer. *The Environmental Protection Agency (E.P.A.) states that a radon reading of more than 4.0 picocuries per liter of air represents a health hazard.* A radon evaluation is beyond the scope of this inspection (unless specifically requested). For more information, consult the Environmental Protection Agency (E.P.A.) for further guidance and a list of testing labs in your area.
- **Monitor:** Carbon monoxide is a colorless, odorless gas that can result from a faulty fuel burning furnace, range, water heater, space heater or wood stove. Proper maintenance of these appliances is the best way to reduce the risk of carbon monoxide poisoning. For more information, consult the Consumer Product Safety Commission at 1-800-638-2772 (C.P.S.C.) for further guidance. It would be wise to install of carbon monoxide detectors within the home.

## LIMITATIONS OF INTERIOR INSPECTION

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As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions

- Furniture, storage, appliances and/or wall hangings are not moved to permit inspection and may block defects.
- Carpeting, window treatments, central vacuum systems, household appliances, recreational facilities, paint, wallpaper, and other finish treatments are not inspected.
- Portions of the foundation walls were concealed from view.
- The adequacy of the fireplace draw cannot be determined during a visual inspection.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

# Appliances

## DESCRIPTION OF APPLIANCES

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<b>Appliances Tested:</b>	•Electric Range •Microwave Oven •Dishwasher •Waste Disposer
<b>Laundry Facility:</b>	•240 Volt Circuit for Dryer •Dryer Vented to Building Exterior •120 Volt Circuit for Washer •Hot and Cold Water Supply for Washer
<b>Other Components Tested:</b>	•Waste Standpipe for Washer •Door Bell

## APPLIANCES OBSERVATIONS

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### Positive Attributes

All appliances that were tested responded satisfactorily. The kitchen cabinetry is above average quality. The kitchen and laundry facilities are well organized.

### General Comments

The appliances are middle aged. As such, they will become slightly more prone to breakdowns; however, several years of serviceable life should remain. For the purpose of this inspection, the dishwasher was operated in a rinse only cycle.

## RECOMMENDATIONS / OBSERVATIONS

### Electric Range

- **Improve, Safety Issue:** It is a recommendation that a tip bracket be installed on one of the rear legs of the electric range to prevent it from accidentally tipping when the oven door is open.

### Dishwasher

- **Monitor:** The dishwasher is an old unit. While replacement is not needed right away, it would be wise to budget for a new dishwasher. In the interim, a higher level of maintenance can be expected.
- **Repair:** The dishwasher door is damaged.

### Microwave Oven

- **Repair:** The microwave cook top light is inoperative.
- **Repair:** The shelf on the inside of the microwave is cracked and the unit should not be operated. It is recommended that the microwave be replaced. (See photo #24)

## LIMITATIONS OF APPLIANCES INSPECTION

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As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions

- Thermostats, timers and other specialized features and controls are not tested.
- The temperature calibration, functionality of timers, effectiveness, efficiency and overall performance of appliances is outside the scope of this inspection.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

# Fireplaces / Wood Stoves

## DESCRIPTION OF FIREPLACES / WOOD STOVES

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**Fireplaces:**

•Steel Firebox •Gas

**Vents, Flues, Chimneys:**

•Outside Combustion Air Not Provided •Metal Flue-Insulated Multi-Wall

## FIREPLACES / WOOD STOVES OBSERVATIONS

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### General Comments

On the whole, the fireplace and its components are in above average condition. Typical minor flaws were observed in some areas.

### RECOMMENDATIONS / OBSERVATIONS

#### Fireplaces

- **Repair:** As the fireplace has been converted to gas, a damper clip should be installed on the damper to prevent it from closing completely and avoiding the accidental build up of gas in the home.

## LIMITATIONS OF FIREPLACES / WOOD STOVES INSPECTION

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As we have discussed and as described in your inspection contract, this is a visual inspection limited in scope by (but not restricted to) the following conditions

- The interiors of flues or chimneys are not inspected.
- Fire screens, fireplace doors, appliance gaskets and seals, automatic fuel feed devices, mantles and fireplace surrounds, combustion make-up air devices, and heat distribution assists (gravity or fan-assisted) are not inspected.
- The inspection does not involve igniting or extinguishing fires nor the determination of draft.
- Fireplace inserts, stoves, or firebox contents are not moved.

Please also refer to the pre-inspection contract for a detailed explanation of the scope of this inspection.

# Photo Summary



1.) Settlement crack on west wall.



2.) Displacement of block on west wall.



3.) Notched floor joist.



4.) Sheer crack on west exterior wall of garage.



5.) Insufficient clearance siding/roof.



6.) Deteriorated siding.

# Photo Summary

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7.) Deteriorated siding at chimney.



8.) Deteriorated siding trim at chimney.



9.) Siding delamination.



10.) Siding delamination.



11.) Siding delamination.

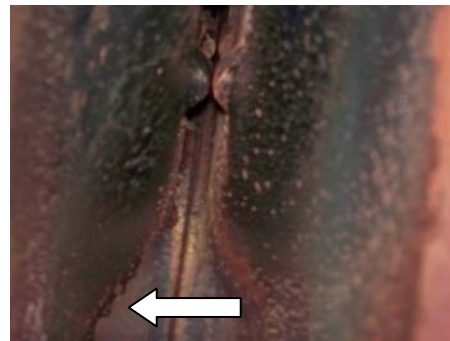


12.) Slab sloped towards home.

# Photo Summary



13.) Missing light fixture.



14.) Possible crack in exchanger.



15.) Possible crack in exchanger.



16.) Bath exhaust vented to the attic.



17.) Bath exhaust vented to the attic.



18.) Drywall flaw in ceiling of north bedroom.

# Photo Summary



19.) Water stain on sill.



20.) Past water penetration at three season porch.



21.) Past water penetration at three season porch.



22.) Evidence of past moisture in basement.



23.) Evidence of past moisture in basement.



24.) Crack shelf in microwave.

# Maintenance Advice

## UPON TAKING OWNERSHIP

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After taking possession of a new home, there are some maintenance and safety issues that should be addressed immediately. The following checklist should help you undertake these improvements:

- Change the locks on all exterior entrances, for improved security.
- Check that all windows and doors are secure. Improve window hardware as necessary. Security rods can be added to sliding windows and doors. Consideration could also be given to a security system.
- Install smoke detectors on each level of the home. Ensure that there is a smoke detector outside all sleeping areas. Replace batteries on any existing smoke detectors and test them. Make a note to replace batteries again in one year.
- Create a plan of action in the event of a fire in your home. Ensure that there is an operable window or door in every room of the house. Consult with your local fire department regarding fire safety issues and what to do in the event of fire.
- Examine driveways and walkways for trip hazards. Undertake repairs where necessary.
- Examine the interior of the home for trip hazards. Loose or torn carpeting and flooring should be repaired.
- Undertake improvements to all stairways, decks, porches and landings where there is a risk of falling or stumbling.
- Review your home inspection report for any items that require immediate improvement or further investigation. Address these areas as required.
- Install rain caps and vermin screens on all chimney flues, as necessary.
- Investigate the location of the main shut-offs for the plumbing, heating and electrical systems. If you attended the home inspection, these items would have been pointed out to you.

## REGULAR MAINTENANCE

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### EVERY MONTH

- Check that fire extinguisher(s) are fully charged. Re-charge if necessary.
- Examine heating/cooling air filters and replace or clean as necessary.
- Inspect and clean humidifiers and electronic air cleaners.
- If the house has hot water heating, bleed radiator valves.
- Clean gutters and downspouts. Ensure that downspouts are secure, and that the discharge of the downspouts is appropriate. Remove debris from window wells.
- Carefully inspect the condition of shower enclosures. Repair or replace deteriorated grout and caulk. Ensure that water is not escaping the enclosure during showering. Check below all plumbing fixtures for evidence of leakage.
- Repair or replace leaking faucets or shower heads.
- Secure loose toilets, or repair flush mechanisms that become troublesome.

### SPRING AND FALL

- Examine the roof for evidence of damage to roof coverings, flashings and chimneys.
- Look in the attic (if accessible) to ensure that roof vents are not obstructed. Check for evidence of leakage, condensation or vermin activity. Level out insulation if needed.
- Trim back tree branches and shrubs to ensure that they are not in contact with the house.

- Inspect the exterior walls and foundation for evidence of damage, cracking or movement. Watch for bird nests or other vermin or insect activity.
- Survey the basement and/or crawl space walls for evidence of moisture seepage.
- Look at overhead wires coming to the house. They should be secure and clear of trees or other obstructions.
- Ensure that the grade of the land around the house encourages water to flow away from the foundation.
- Inspect all driveways, walkways, decks, porches, and landscape components for evidence of deterioration, movement or safety hazards.
- Clean windows and test their operation. Improve caulking and weather-stripping as necessary. Watch for evidence of rot in wood window frames. Paint and repair window sills and frames as necessary.
- Test all ground fault circuit interrupter (GFCI) devices, as identified in the inspection report.
- Shut off isolating valves for exterior hose bibs in the fall, if below freezing temperatures are anticipated.
- Test the Temperature and Pressure Relief (TPR) Valve on water heaters.
- Inspect for evidence of wood boring insect activity. Eliminate any wood/soil contact around the perimeter of the home.
- Test the overhead garage door opener, to ensure that the auto-reverse mechanism is responding properly. Clean and lubricate hinges, rollers and tracks on overhead doors.
- Replace or clean exhaust hood filters.
- Clean, inspect and/or service all appliances as per the manufacturer's recommendations.

#### **ANNUALLY**

- Replace smoke detector batteries.
- Have the heating, cooling and water heater systems cleaned and serviced.
- Have chimneys inspected and cleaned. Ensure that rain caps and vermin screens are secured.
- Examine the electrical panels, wiring and electrical components for evidence of overheating. Ensure that all components are secure. Flip the breakers on and off to ensure that they are not sticky.
- If the house utilizes a well, check and service the pump and holding tank. Have the water quality tested. If the property has a septic system, have the tank inspected (and pumped as needed).
- If your home is in an area prone to wood destroying insects (termites, carpenter ants, etc.), have the home inspected by a licensed specialist. Preventative treatments may be recommended in some cases.

#### **PREVENTION IS THE BEST APPROACH**

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Although we've heard it many times, nothing could be truer than the old cliché "an ounce of prevention is worth a pound of cure." Preventative maintenance is the best way to keep your house in great shape. It also reduces the risk of unexpected repairs and improves the odds of selling your house at fair market value, when the time comes.

Please feel free to contact our office should you have any questions regarding the operation or maintenance of your home. Enjoy your home!

# Information About Radon



## EPA RADON RISK INFORMATION

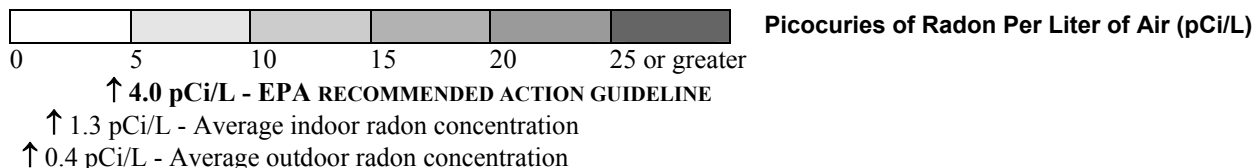
Fifty-five percent of our exposure to natural sources of radiation usually comes from radon. Radon is a colorless, tasteless, and odorless gas that comes from the decay of uranium found in nearly all soils. Levels of radon vary throughout the country. Radon is found all over the United States and scientists estimate that nearly one out of every 15 homes in this country has radon levels above recommended action levels.

Radon usually moves from the ground up and migrates into homes and other buildings through cracks and other holes in their foundations. The buildings trap radon inside, where it accumulates and may become a health hazard if the building is not properly ventilated.

When you breathe air containing a large amount of radon, the radiation can damage your lungs and eventually cause lung cancer. Scientists believe that radon is the second leading cause of lung cancer in the United States. It is estimated that 7,000 to 30,000 Americans die each year from radon-induced lung cancer. Only smoking causes more lung cancer deaths and smokers exposed to radon are at higher risk than nonsmokers. Testing your home is the only way to know if you and your family are at risk from radon.

### Testing for Radon.

Should you have your home tested, use the chart below to compare your radon test results with the EPA guideline. The higher a home's radon level, the greater the health risk to you and your family.



**The U.S. Environmental Protection Agency (EPA) and the Surgeon General Strongly recommend taking further action when the home's radon test results are 4.0 pCi/L or greater.** The concentration of radon in the home is measured in picocuries per liter of air (pCi/L). Radon levels less than 4.0 pCi/L still pose some risk and in many cases may be reduced. If the radon level in your home is between 2.0 and 4.0 pCi/L, EPA recommends that you **consider** fixing your home. The national average indoor radon level is about 1.3 pCi/L. The higher a home's radon level, the greater the health risk to you and your family. Smokers and former smokers are at especially high risk. There are straightforward ways to fix a home's radon problem that are not too costly. Even homes with very high levels can be reduced to below 4.0 pCi/L. EPA recommends that you use an EPA or State-approved contractor trained to fix radon problems.

### What do radon test results mean?

If your radon level is **below 4 pCi/L**, you do not need to take action.

If your radon level is **4 pCi/L or greater**, use the following charts to determine what your test results mean. Depending upon the type of test(s) you took, you will have to either test again or fix the home.

NOTE: All tests should meet EPA technical protocols.

**Chart 1: Radon Test Conducted Outside Real Estate Transaction**

Type of Test(s)	If Radon Level Is 4.0 pCi/L or Greater
Single Short-Term Test	<b>Test Again*</b>
Average of Short-Term Tests	<b>Fix The Home</b>
One Long-Term Test	<b>Fix The Home</b>

\* If your first short term test is several times greater than 4.0 pCi/L - for example, about 10.0 pCi/L or higher - you should take a second short-term test immediately.

**Chart 1: Radon Test Conducted During a Real Estate Transaction (Buying or Selling a Home)**

Type of Test(s)	If Radon Level Is 4.0 pCi/L or Greater
Single Active Short-Term Test (this test requires a machine)	<b>Fix The Home</b>
Average of 2 Passive Short-Term Tests* (these tests do not require machines)	<b>Fix The Home</b>
One Long-Term Test	<b>Fix The Home</b>

\* Use two passive short-term tests and average the results.

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### What should I do after testing?

If your radon level is 4.0 pCi/L or greater, you can call your State radon office to obtain more information, including a list of EPA or State-approved radon contractors who can fix or can help you develop a plan for fixing the radon problem. Reduction methods can be as simple as sealing cracks in floors and walls or as complex as installing systems that use pipes and fans to draw radon out of the building.

EPA has a National Radon Program to inform the public about radon risks, train radon mitigation contractors, provide grants for state radon programs, and develop standards for radon-resistant buildings. EPA works with health organizations, state radon programs, and other federal agencies to make the program as effective as possible.

**For more information about radon, its risks and what you can do to protect yourself, call 1-800-SOS-RADON and request a free copy of EPA's *A Citizen's Guide to Radon*. You may also call the Radon Fix-It Line at 1-800-644-6999 between noon and 8pm Monday through Friday, EST/EDT, for information and assistance. This toll-free line is operated by Consumer Federation of America, a nonprofit consumer organization.**

# Information About Carbon Monoxide

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## What is carbon monoxide (CO) and how is it produced in the home?

CO is a colorless, odorless, toxic gas. It is produced by the incomplete combustion of solid, liquid and gaseous fuels. Appliances fueled with gas, oil, kerosene, or wood may produce CO. If such appliances are not installed, maintained, and used properly, CO may accumulate to dangerous levels.

### What are the symptoms of CO poisoning and why are these symptoms particularly dangerous?

Breathing CO causes symptoms such as headaches, dizziness, and weakness in healthy people. CO also causes sleepiness, nausea, vomiting, confusion and disorientation. At very high levels, it causes loss of consciousness and death.

This is particularly dangerous because CO effects often are not recognized. CO is odorless and some of the symptoms of CO poisoning are similar to the flu or other common illnesses.

### Are some people more affected by exposure to CO than others?

CO exposures especially affect unborn babies, infants, and people with anemia or a history of heart disease. Breathing low levels of the chemical can cause fatigue and increase chest pain in people with chronic heart disease.

### How many people die from CO poisoning each year?

In 1989, the most recent year for which statistics are available, there were about 220 deaths from CO poisoning associated with gas-fired appliances, about 30 CO deaths associated with solid-fueled appliances (including charcoal grills), and about 45 CO deaths associated with liquid-fueled heaters.

### How many people are poisoned from CO each year?

Nearly 5,000 people in the United States are treated in hospital emergency rooms for CO poisoning; this number is believed to be an underestimate because many people with CO symptoms mistake the symptoms for the flu or are misdiagnosed and never get treated.

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## How can production of dangerous levels of CO be prevented?

Dangerous levels of CO can be prevented by proper appliance maintenance, installation, and use:

### Maintenance:

- A qualified service technician should check your home's central and room heating appliances (including water heaters and gas dryers) annually. The technician should look at the electrical and mechanical components of appliances, such as thermostat controls and automatic safety devices.
- Chimneys and flues should be checked for blockages, corrosion, and loose connections.
- Individual appliances should be serviced regularly. Kerosene and gas space heaters (vented and unvented) should be cleaned and inspected to insure proper operation.
- CPSC recommends finding a reputable service company in the phone book or asking your utility company to suggest a qualified service technician.

### Installation:

- Proper installation is critical to the safe operation of combustion appliances. All new appliances have installation instructions that should be followed exactly. Local building codes should be followed as well.
- Vented appliances should be vented properly, according to manufacturer's instructions.
- Adequate combustion air should be provided to assure complete combustion.
- All combustion appliances should be installed by professionals.

### Appliance Use:

Follow manufacturer's directions for safe operation.

- Make sure the room where an unvented gas or kerosene space heater is used is well ventilated; doors leading to another room should be open to insure proper ventilation.
- Never use an unvented combustion heater overnight or in a room where you are sleeping.

**Are there signs that might indicate improper appliance operation?**

Yes, these are:

- Decreasing hot water supply
- Furnace unable to heat house or runs constantly
- Sooting, especially on appliances
- Unfamiliar or burning odor
- Increased condensation inside windows

**Are there visible signs that might indicate a CO problem?**

Yes, these are:

- Improper connections on vents and chimneys
- Visible rust or stains on vents and chimneys
- An appliance that makes unusual sounds or emits an unusual smell
- An appliance that keeps shutting off (Many new appliances have safety components attached that prevent operation if an unsafe condition exists. If an appliance stops operating, it may be because a safety device is preventing a dangerous condition. Therefore, don't try to operate an appliance that keeps shutting off; call a service person instead.)

**Are there other ways to prevent CO poisoning?**

Yes, these are:

- Never use a range or oven to heat the living areas of the home
- Never use a charcoal grill or hibachi in the home
- Never keep a car running in an attached garage

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**Can CO be detected?**

Yes, CO can be detected with CO detectors that meet the requirements of Underwriters Laboratories (UL) standard 2034.

Since the toxic effect of CO is dependent upon both CO concentration and length of exposure, long-term exposure to a low concentration can produce effects similar to short term exposure to a high concentration.

Detectors should measure both high CO concentrations over short periods of time and low CO concentrations over long periods of time - the effects of CO can be cumulative over time. The detectors also sound an alarm before the level of CO in a person's blood would become crippling. CO detectors that meet the UL 2034 standard currently cost between \$35 and \$80.

**Where should the detector be installed?**

CO gases distribute evenly and fairly quickly throughout the house; therefore, a CO detector should be installed on the wall or ceiling in sleeping area/s but outside individual bedrooms to alert occupants who are sleeping.

**Aren't there safety devices already on some appliances? And if so, why is a CO detector needed?**

Vent safety shutoff systems have been required on furnaces and vented heaters since the late 1980s. They protect against blocked or disconnected vents or chimneys. Oxygen depletion sensors (ODS) have also been installed on unvented gas space heaters since the 1980s. ODS protect against the production of CO caused by insufficient oxygen for proper combustion. These devices (ODS and vent safety shutoff systems) are not a substitute for regular professional servicing, and many older, potentially CO-producing appliances may not have such devices. Therefore, a CO detector is still important in any home as another line of defense.

**Are there other CO detectors that are less expensive?**

There are inexpensive cardboard or plastic detectors that change color and do not sound an alarm and have a limited useful life. They require the occupant to look at the device to determine if CO is present. CO concentrations can build up rapidly while occupants are asleep, and these devices would not sound an alarm to wake them.

**For additional information, write to the U.S. Consumer Product Safety Commission, Washington, D.C., 20207, call the toll-free hotline at 1-800-638-2772, or visit the website <http://www.cpsc.gov>**

## AMERICAN SOCIETY OF HOME INSPECTORS®

# Standards of Practice

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  3. Structural System
  4. Exterior
  5. Roofing System
  6. Plumbing System
  7. Electrical System
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  9. Air Conditioning Systems
  10. Interior
  11. Insulation & Ventilation
  12. Fireplaces & Solid Fuel Burning Appliances
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Effective October 15, 2006  
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*Italicized words* in the Standards of Practice are defined in the [Glossary](#).

### 1. INTRODUCTION

1.1 The American Society of Home Inspectors®, Inc. (ASHI®) is a not-for-profit professional society established in 1976. Membership in ASHI is voluntary and its members are private home [inspectors](#). ASHI's objectives include promotion of excellence within the profession and continual improvement of its members' inspection services to the public.

### 2. PURPOSE & SCOPE

2.1 The purpose of these Standards of Practice is to establish a minimum and uniform standard for home [inspectors](#) who subscribe to these Standards of Practice. [Home Inspections](#) performed to these Standards of Practice are intended to provide the client with objective information regarding the condition of the [systems](#) and [components](#) of the home as inspected at the time of the [home inspection](#). Redundancy in the description of the requirements, limitations, and exclusions regarding the scope of the home inspection is provided for emphasis only.

2.2 [Inspectors](#) shall:

- A. adhere to the Code of Ethics of the American Society of Home Inspectors.
- B. [inspect readily accessible](#), visually observable, [installed systems](#) and [components](#) listed in these Standards of Practice.
- C. [report](#) :
  1. those [systems](#) and [components inspected](#) that, in the professional judgment of the [inspector](#), are not functioning properly, significantly deficient, [unsafe](#), or are near the end of their service lives.

2. recommendations to correct, or monitor for future correction, the deficiencies reported in 2.2.C.1, or items needing further evaluation. (Per Exclusion 13.2.A.5 inspectors are NOT required to determine methods, materials, or costs of corrections.)
3. reasoning or explanation as to the nature of the deficiencies reported in 2.2.C.1, that are not self-evident.
4. systems and components designated for inspection in these Standards of Practice that were present at the time of the home inspection but were not inspected and the reason(s) they were not inspected.

2.3 These Standards of Practice are not intended to limit inspectors from:

- A. including other inspection services or systems and components in addition to those required In Section 2.2.B.
- B. designing or specifying repairs, provided the inspector is appropriately qualified and willing to do so.
- C. excluding systems and components from the inspection if requested by the client.

### 3. STRUCTURAL SYSTEM

3.1 The inspector shall

- A. inspect
  1. the structural components including the foundation and framing.
  2. by probing a representative number of structural components where deterioration is suspected or where clear indications of possible deterioration exist. Probing is NOT required when probing would damage any finished surface or where no deterioration is visible or presumed to exist.
- B. describe
  1. the methods used to inspect under-floor crawl space and attics.
  2. the foundation.
  3. the floor structure.
  4. the wall structure.
  5. the ceiling structure.
  6. the roof structure.

3.2 The inspector is NOT required to

- A. provide any engineering or architectural service or analysis.
- B. offer an opinion as to the adequacy of any structural system or component

### 4. EXTERIOR

4.1 The inspector shall:

- A. inspect :
  1. siding, flashing and trim.
  2. all exterior doors.
  3. attached or adjacent decks, balconies, stoops, steps, porches, and their associated railings.
  4. eaves, soffits, and fascias where accessible from the ground level.
  5. vegetation, grading, surface drainage, and retaining walls that are likely to adversely affect the building.
  6. adjacent or entryway walkways, patios, and driveways.

- B. describe :
  - 1. siding.

- 4.2 The inspector is NOT required to inspect:
- A. screening, shutters, awnings, and similar seasonal accessories.
  - B. fences.
  - C. geological and/or soil conditions.
  - D. recreational facilities.
  - E. outbuildings other than garages and carports.
  - F. seawalls, break-walls, and docks.
  - G. erosion control and earth stabilization measures.

## 5. ROOFING SYSTEM

- 5.1 The inspector shall:
- A. inspect:
    - B. roofing materials .
    - C. roof drainage systems.
    - D. flashing.
    - E. skylights, chimneys, and roof penetrations.
  - B. describe:
    - 1. roofing materials.
    - 2. methods used to inspect the roofing.

- 5.2 The inspector is NOT required to inspect:
- A. antennae.
  - B. interiors of flues or chimneys that are not readily accessible.
  - C. other installed accessories.

## 6. PLUMBING SYSTEM

- 6.1 The inspector shall:
- A. inspect:
    - interior water supply and distribution systems including all fixtures and faucets.
    - drain, waste and vent systems including all fixtures.
    - water heating equipment and hot water supply system.
    - vent systems , flues, and chimneys.
    - fuel storage and fuel distribution systems.
    - drainage sumps, sump pumps, and related piping.
  - B. describe :
    - water supply, drain, waste, and vent piping materials.
    - water heating equipment including energy source(s).
    - location of main water and main fuel shut-off valves.
- 6.2 The inspector is NOT required to:
- A. inspect:
    - 1. clothes washing machine connections.
    - 2. interiors of flues or chimneys that are not readily accessible.

3. wells, well pumps, or water storage related equipment.
  4. water conditioning systems.
  5. solar water heating systems.
  6. fire and lawn sprinkler systems.
  7. private waste disposal systems.
- B. determine:
1. whether water supply and waste disposal systems are public or private.
  2. water supply quantity or quality.
- C. operate automatic safety controls or manual stop valves.

## 7. ELECTRICAL SYSTEM

7.1 The inspector shall:

- A. inspect :
1. service drop.
  2. service entrance conductors, cables, and raceways.
  3. service equipment and main disconnects.
  4. service grounding.
  5. interior components of service panels and sub panels.
  6. conductors.
  7. over current protection devices.
  8. a representative number of installed lighting fixtures, switches, and receptacles.
  9. ground fault circuit interrupters.
- B. describe:
1. amperage and voltage rating of the service.
  2. the location of main disconnect(s) and sub panels.
  3. presence of solid conductor aluminum branch circuit wiring.
  4. presence or absence of smoke detectors.
  5. wiring methods.

7.2 The inspector is NOT required to:

- A. inspect :
1. remote control devices.
  2. alarm systems and components.
  3. low voltage wiring systems and components.
  4. ancillary wiring systems and components not a part of the primary electrical power distribution system.
- B. measure amperage, voltage or impedance.

## 8. HEATING SYSTEM

8.1 The inspector shall:

- A. open readily openable access panels.
- B. inspect:
1. installed heating equipment.
  2. vent systems, flues, and chimneys.

- C. describe:
  - 1. energy source(s).
  - 2. heating systems.

8.2 The inspector is NOT required to:

- A. inspect:
  - 1. interiors of flues or chimneys that are not readily accessible.
  - 2. heat exchangers.
  - 3. humidifiers or dehumidifiers.
  - 4. electronic air filters.
  - 5. solar space heating systems.
- B. determine heat supply adequacy or distribution balance.

## 9. AIR CONDITIONING SYSTEMS

9.1 The inspector shall:

- A. open readily openable access panels.
- B. inspect :
  - 1. central and through-wall equipment.
  - 2. distribution systems.
- C. describe:
  - 1. energy source(s).
  - 2. cooling systems.

9.2 The inspector is NOT required to:

- A. inspect electronic air filters.
- B. determine cooling supply adequacy or distribution balance.
- C. inspect window air conditioning units.

## 10. INTERIOR

10.1 The inspector shall inspect :

- A. walls, ceilings, and floors.
- B. steps, stairways, and railings.
- C. countertops and a representative number of installed cabinets.
- D. a representative number of doors and windows.
- E. garage doors and garage door operators.

10.2 The inspector is NOT required to inspect :

- A. paint, wallpaper, and other finish treatments.
- B. carpeting.
- C. window treatments.
- D. central vacuum systems.
- E. household appliances.
- F. recreational facilities.

## 11. INSULATION & VENTILATION

11.1 The *inspector* shall:

- A. *inspect*:
  - insulation and vapor retarders in unfinished spaces.
  - ventilation of attics and foundation areas.
  - mechanical ventilation *systems*.
- B. *describe*:
  - insulation and vapor retarders in unfinished spaces.
  - absence of insulation in unfinished spaces at conditioned surfaces.

11.2 The *inspector* is NOT required to disturb insulation.  
See 13.2.A.11 and 13.2.A.12.

## 12. FIREPLACES & SOLID FUEL BURNING APPLIANCES

12.1 The *inspector* shall:

- A. *inspect*:
  - 1. *system components*.
  - 2. chimney and vents.
- B. *describe*:
  - 1. fireplaces and *solid fuel burning appliances*.
  - 2. chimneys.

12.2 The *inspector* is NOT required to:

- A. *inspect*:
  - 1. interiors of flues or chimneys.
  - 2. fire screens and doors.
  - 3. seals and gaskets.
  - 4. automatic fuel feed devices.
  - 5. mantles and fireplace surrounds.
  - 6. combustion make-up air devices.
  - 7. heat distribution assists (gravity fed and fan assisted).
- B. ignite or extinguish fires.
- C. determine draft characteristics.
- D. move fireplace inserts and stoves or firebox contents.

## 13. GENERAL LIMITATIONS & EXCLUSIONS

13.1 General limitations:

- A. The *inspector* is NOT required to perform any action or make any determination not specifically stated in these Standards of Practice.
- B. Inspections performed in accordance with these Standards of Practice :
  - 1. are not *technically exhaustive*.
  - 2. are not required to identify concealed conditions, latent defects, or consequential damage(s).
- C. These Standards of Practice are applicable to buildings with four or fewer dwelling units and their garages or carports.

## 13.2 General exclusions:

- A. Inspectors are not required to determine:
1. conditions of systems or components that are not readily accessible.
  2. remaining life expectancy of any system or component.
  3. strength, adequacy, effectiveness, or efficiency of any system or component.
  4. the causes of any condition or deficiency.
  5. methods, materials, or costs of corrections.
  6. future conditions including, but not limited to, failure of systems and components.
  7. the suitability of the property for any specialized use.
  8. compliance with regulatory requirements (codes, regulations, laws, ordinances, etc.).
  9. market value of the property or its marketability.
  10. the advisability of purchase of the property.
  11. the presence of potentially hazardous plants or animals including, but not limited to wood destroying organisms or diseases harmful to humans including molds or mold-like substances.
  12. the presence of any environmental hazards including, but not limited to toxins, carcinogens, noise, and contaminants in soil, water, and air.
  13. the effectiveness of any system installed or method utilized to control or remove suspected hazardous substances.
  14. operating costs of systems or components.
  15. acoustical properties of any system or component.
  16. soil conditions relating to geotechnical or hydrologic specialties.
- B. Inspectors are NOT required to offer:
1. or perform any act or service contrary to law.
  2. or perform engineering services.
  3. or perform work in any trade or any professional service other than home inspection.
  4. warranties or guarantees of any kind.
- C. Inspectors are NOT required to operate:
1. any system or component that is shut down or otherwise inoperable.
  2. any system or component that does not respond to normal operating controls.
  3. shut-off valves or manual stop valves.
- D. Inspectors are NOT required to enter:
1. any area that will, in the opinion of the inspector, likely be dangerous to the inspector or other persons or damage the property or its systems or components.
  2. under-floor crawl spaces or attics that are not readily accessible.
- E. Inspectors are NOT required to inspect:
1. underground items including, but not limited to underground storage tanks or other underground indications of their presence, whether abandoned or active.
  2. items that are not installed.
  3. installed decorative items.
  4. items in areas that are not entered in accordance with 13.2.D.
  5. detached structures other than garages and carports.
  6. common elements or common areas in multi-unit housing, such as condominium properties or cooperative housing.
- F. Inspectors are NOT required to:
1. perform any procedure or operation that will, in the opinion of the inspector, likely be dangerous to the inspector or other persons or damage the property or its systems or components.
  2. describe or report on any system or component that is not included in these Standards and was not inspected.
  3. move personal property, furniture, equipment, plants, soil, snow, ice, or debris.
  4. dismantle any system or component, except as explicitly required by these Standards of Practice.

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## GLOSSARY OF TERMS

### *ALARM SYSTEMS:*

Warning devices installed or free-standing including but not limited to smoke detectors, carbon monoxide detectors, flue gas, and other spillage detectors, and security equipment

### *ARCHITECTURAL SERVICE:*

Any practice involving the art and science of building design for construction of any structure or grouping of structures and the use of space within and surrounding the structures or the design for construction, including but not specifically limited to, schematic design, design development, preparation of construction contract documents, and administration of the construction contract.

### *AUTOMATIC SAFETY CONTROLS:*

Devices designed and installed to protect systems and components from unsafe conditions

### *COMPONENT:*

A part of a system.

### *DECORATIVE:*

Ornamental; not required for the operation of the essential systems and components of a home

### *DESCRIBE:*

To identify (in writing) a system or component by its type or other distinguishing characteristics

### *DISMANTLE:*

To take apart or remove any component, device or piece of equipment that would not be taken apart or removed by a homeowner in the course of normal and routine home owner maintenance

### *ENGINEERING:*

The application of scientific knowledge for the design, control, or use of building structures, equipment, or apparatus building structures, equipment, or apparatus

### *FURTHER EVALUATION:*

Examination and analysis by a qualified professional, tradesman, or service technician beyond that provided by the home inspection.

### *HOME INSPECTION:*

The process by which an inspector visually examines the readily accessible systems and components of a home and which describes those systems and components in accordance with these Standards of Practice

### *HOUSEHOLD APPLIANCES:*

Kitchen, laundry, and similar appliances, whether installed or free-standing

### *INSPECT:*

To examine any system or component of a building in accordance with these Standards of Practice, using normal operating controls and opening readily openable access panels

### *INSPECTOR:*

A person hired to examine any system or component of a building in accordance with these Standards of Practice

### *INSTALLED:*

Attached such that removal requires tools

### *NORMAL OPERATING CONTROLS:*

Devices such as thermostats, switches or valves intended to be operated by the homeowner

*READILY ACCESSIBLE:*

Available for visual inspection without requiring moving of personal property, dismantling, destructive measures, or any action which will likely involve risk to persons or property

*READILY OPENABLE ACCESS PANEL:*

A panel provided for homeowner inspection and maintenance that is readily accessible, within normal reach, can be removed by one person, and is not sealed in place

*RECREATIONAL FACILITIES:*

Spas, saunas, steam baths, swimming pools, exercise, entertainment, athletic, playground or other similar equipment, and associated accessories

*REPORT*

Communicate in writing

*REPRESENTATIVE NUMBER:*

One component per room for multiple similar interior components such as windows, and electric receptacles; one component on each side of the building for multiple similar exterior components

*ROOF DRAINAGE SYSTEMS:*

Components used to carry water off a roof and away from a building

*SIDING:*

Exterior wall covering and cladding; such as: aluminum, asphalt, brick, cement/asbestos, EIFS, stone, stucco, veneer, vinyl, wood, etc.

*SIGNIFICANTLY DEFICIENT:*

Unsafe or not functioning

*SHUT DOWN:*

A state in which a system or component cannot be operated by normal operating controls

*SOLID FUEL BURNING APPLIANCES:*

A hearth and fire chamber or similar prepared place in which a fire may be built and that is built in conjunction with a chimney; or a listed assembly of a fire chamber, its chimney, and related factory-made parts designed for unit assembly without requiring field construction

*STRUCTURAL COMPONENT:*

A component that supports non-variable forces or weights (dead loads) and variable forces or weights (live loads)

*SYSTEM:*

A combination of interacting or interdependent components, assembled to carry out one or more functions

*TECHNICALLY EXHAUSTIVE:*

An investigation that involves dismantling, the extensive use of advanced techniques, measurements, instruments, testing, calculations, or other means

*UNDERFLOOR CRAWL SPACE:*

The area within the confines of the foundation and between the ground and the underside of the floor

*UNSAFE:*

A condition in a readily accessible, installed system or component that is judged to be a significant risk of bodily injury during normal, day-to-day use; the risk may be due to damage, deterioration, improper installation, or a change in accepted residential construction standards

*WIRING METHODS:*

Identification of electrical conductors or wires by their general type, such as non-metallic sheathed cable, armored cable, or knob and tube, etc.