

# *Certified Home Inspection, LLC*

## Property Inspection Report



Inspection prepared for:  
Date of Inspection: 11/18/2021

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**CERTIFIED**  
**HOME INSPECTION, LLC**



## Report Introduction

We appreciate the opportunity to conduct this inspection for you! Please carefully read your entire Inspection Report. Call us after you have reviewed your report if you have any questions. Remember, when the inspection is completed and the report is delivered, we are still available for any questions you may have.

Properties being inspected do not "Pass" or "Fail." - The following report is based on an inspection of the visible portion of the structure; inspection may be limited by vegetation and possessions. Depending upon the age of the property, some items like GFCI outlets may not be installed; this report will focus on safety and function, not current code. This report identifies specific non-code, non-cosmetic concerns that the inspector feels may need further investigation or repair.

For your safety and liability purposes, we recommend that all work be performed by licensed contractors. Note that this report is a snapshot in time. We recommend that you or your representative carry out a final walk-through inspection immediately before closing to check the condition of the property, using this report as a guide.

Our report contains a unique pop-up glossary feature. When you see words highlighted in yellow hover your mouse over the term. The definition or a tip about the item will appear!

## Report Summary

### METAL ROOFS

Page 11 Item: 2 Snowguards

- The roof had no snowguards installed to protect exposed areas below from snowpack sliding off the roof. Heavy snowpack sliding off the roof can cause damage to home components and may cause serious or fatal injury. The Inspector recommends that you consult with a qualified roofing contractor to discuss options and costs for proper snowguard installation.

### GUTTERS

Page 11 Item: 1 Downspouts

- One or more downspouts discharged roof drainage next to the foundation. This condition can effect the ability of the soil to support the weight of the structure above and can cause damage related to soil/foundation movement. Recommend the installation of downspout extensions to discharge roof drainage a minimum of 6 feet from the foundation.

### SIDING

Page 12 Item: 1 Wood Siding

- Wood siding covering exterior walls of the home had areas of advanced deterioration that were cracked allowing moisture intrusion of the wall assembly. The Inspector recommends replacement or repair of siding in any such areas to help prevent damage from moisture intrusion to the home materials and the exterior wall structure. All work should be performed by a qualified contractor.

### EXTERIOR ELECTRICAL

Page 13 Item: 1 Exterior  
Receptacles

- Although elctrical receptacle on the right side deck was enclosed in weatherproof enclosure, no Ground Fault Circuit Interrupter (GFCI) protection was provided to the receptacle on the right side of the house.

### REAR DECK

Page 13 Item: 1 Deck  
Foundation

- Wooden posts supporting the deck have suffered erosion of soil beneath that could eventually cause structural failure. This condition should be corrected by a qualified contractor.

Page 13 Item: 2 Deck Planking

• *Deck planking (the walking surface) had moderate wear or deterioration visible at the time of the inspection. Routine maintenance will improve its lifespan.*

Page 14 Item: 3 Deck Guardrails

• *At the time of the inspection, the deck guardrail assemblies exhibited moderate deterioration. Providing routine maintenance will extend the long-term service life of the guardrails.*

## ATTIC

Page 16 Item: 5 Room Vent Terminations

• *A bathroom exhaust vent terminated in the attic instead of at the home exterior. This condition can raise moisture vapor levels in the attic to the point at which home materials are damaged or unhealthy conditions related to mold develop. The Inspector recommends correction by a qualified contractor.*

## GENERAL INTERIOR

Page 22 Item: 4 Ceiling Fan

• *A ceiling fan installed in the bedroom was inoperable. The problem may be the switch, wiring in the wall/ceiling, or problems with the ceiling fan. The inspector recommends evaluation and any necessary work be performed by a qualified contractor.*

## DOORS

Page 22 Item: 1 Exterior Door Condition

• *A door to the exterior at the front entry exhibited light damage. This damage appeared to be from an attempt at forced entry.*

## KITCHEN

Page 23 Item: 2 GFCI Receptacles

• *No ground fault circuit interrupter (GFCI) protection of home electrical receptacles was provided in the kitchen at the time of inspection.*

Page 24 Item: 3 Range

• *The electric stove had one or more inoperable burners. The Inspector recommends service by a qualified technician.*

Page 24 Item: 4 Range Condition

• *The range was not fastened to the floor. A child standing on the open oven door could overturn the range. This condition is a life-safety issue. Recommend installation of an approved anti-tip device by a qualified contractor.*

Page 25 Item: 5 Garbage Disposal

• *The garbage disposal was excessively noisy. The Inspector recommends service by a qualified plumbing contractor.*

## LAUNDRY ROOM

Page 25 Item: 1    Dryer Venting

*• No dryer exhaust duct connection was provided for the dryer. Lack of proper dryer exhausting to the exterior may result in excessively high humidity levels that can damage home materials or components and may encourage microbial growth like mold. Lack of proper dryer exhaust duct can also result in the accumulation of lint in the home. Lint is combustible and its accumulation is a potential fire hazard and a possible health hazard from the inhalation of particulates.  
The Inspector recommends proper installation of an Underwriter's Laboratory (UL)-approved dryer vent for safety reasons. Dryer ducts should be cleaned annually to ensure that safe conditions continue to exist. All work should be performed by a qualified contractor.*

## CRAWLSPACE

Page 27 Item: 2    Moisture Intrusion

*• In the crawlspace, moderate amounts of efflorescence was visible at some of the interior surfaces of the foundation walls. Efflorescence is a white, powdery residue left by moisture seeping through the foundation wall and its presence indicates high moisture levels in soil near the foundation. Excessively high moisture levels in soil supporting the foundation can cause various structural problems related to soil movement. The source of moisture should be identified and the condition corrected by a qualified contractor.*

Page 27 Item: 3    Insulation

*• Thermal insulation was loose or missing. Insulation should be secured properly in place to help reduce heating costs.*

## FURNACE

Page 29 Item: 5    Blower

*• The furnace blower did not appear to be operating at its full capacity. Recommend evaluation by a qualified HVAC technician.*

## WATER HEATER

Page 30 Item: 4    Pressure Relief Valve/Pipe

*• No discharge pipe was installed at the temperature/pressure relief (TPR) valve. The **TPR valve** is designed to open and release extremely hot water when water temperature or pressure inside the tank exceeds safe levels. With no discharge pipe installed, persons near the tank might be badly burned by hot water released by the TPR valve. The Inspector recommends that a properly-configured discharge pipe be installed by a qualified plumbing contractor.*



## SERVICE PANEL

Page 32 Item: 3 Breakers

• *In the service panel, two wires were connected to a breaker designed for only one wire. This is known as a "double-tap" and is a defective condition that should be corrected by a qualified electrical contractor.*

## SUB-PANEL

Page 33 Item: 2 Cabinet Condition

• *Unfilled holes or knockouts in this sub-panel may allow insect or rodent entry, or allow persons to come into contact with energized electrical components. This condition is a potential shock/electrocution hazard and should be corrected by a qualified electrical contractor.*

Page 34 Item: 3 Bonding

• *The sub-panel was not grounded. This is a potential shock hazard and should be corrected by a qualified electrician.*

Page 34 Item: 4 Equipment Grounding & Bonding

• *Grounding and neutral conductors in this sub-panel terminated on the same bus bar. In sub-panels, neutral conductors must be electrically isolated from the grounding system components. This condition is improper and should be corrected by a qualified electrical contractor.*

## BRANCH WIRING

Page 34 Item: 1 Receptacle Deficiencies

• *An electrical receptacle in the crawlspace exhibited visible scorching. This condition is a potential fire hazard and should be investigated and any repairs made by a qualified electrical contractor.*

Page 35 Item: 2 Miswired Receptacles

• *An electrical receptacle in the crawlspace had hot and neutral wires reversed. This condition should be corrected by a qualified electrical contractor.*

• *Several electrical receptacles in the out building had an open ground. Other receptacles in the home were grounded. This condition should be corrected by qualified electrical contractor.*

Page 36 Item: 3    GFCI/AFCI  
Receptacles

• *No ground fault circuit interrupter (GFCI) protection of home electrical receptacles was provided in all required places at the time of inspection. Although GFCI protection may not have been required at the time the home was built, for safety reasons, the Inspector recommends that electrical receptacles located in basements, crawlspaces, garages, the home exterior, and interior receptacles located within 6 feet of a plumbing fixture be provided with ground fault circuit interrupter (GFCI) protection in good working order to avoid potential electric shock or electrocution hazards.*

*This can be achieved relatively inexpensively by:*

- 1. Replacing an individual standard receptacle with a GFCI receptacle.*
- 2. Replacing the circuit receptacle located closest to the electrical circuit overcurrent protection device (usually a breaker) with a GFCI receptacle.*
- 3. Replacing the breaker currently protecting the electrical circuit that contains the receptacles of concern with a GFCI breaker.*

• *No arc-fault circuit interrupter (AFCI) protection was installed to protect electrical circuits in bedrooms. Safety standards with which new homes must comply require the installation of AFCI protection of all bedroom electrical receptacles. This type of protection is designed to detect electrical arcing, which is a potential fire hazard.*

*Although AFCI protection was not required at the time the home was originally constructed, as general knowledge of safe building practices has improved with the passage of time, building standards have changed to reflect current understanding. The Inspector recommends updating the existing bedroom receptacles to provide AFCI protection.*

*All work should be performed by a qualified contractor.*

## INSPECTION and SITE DETAILS

### 1. Occupancy

Observations:

- *The home was unoccupied and was empty of furniture at the time of the inspection.*

### 2. Weather Conditions

Observations:

- *During the inspection the weather was raining.*

### 3. Utilities

Observations:

- *All utilities were on at the time of the inspection.*

## EXTERIOR VIEWS

### 1. Front Entry



### 2. Front and Right



## EXTERIOR VIEWS Continued



3. Front and Left



4. Rear and Right

## EXTERIOR VIEWS Continued



5. Right side



6. Left side

## EXTERIOR VIEWS Continued



### 7. Rear



## POOL/SPA

### 1. POOL/SPA

Observations:

- *Inspection of the pool lies beyond the scope of a general home inspection. Recommend having the pool and pool systems checked by a qualified person prior to purchase of home and regularly as needed.*

## METAL ROOFS

### 1. Metal Roof Damage

Observations:

- *At the time of the inspection, the Inspector observed no deficiencies in the condition of the metal roofing-covering material.*

### 2. Snowguards

Observations:

- *The roof had no snowguards installed to protect exposed areas below from snowpack sliding off the roof. Heavy snowpack sliding off the roof can cause damage to home components and may cause serious or fatal injury. The Inspector recommends that you consult with a qualified roofing contractor to discuss options and costs for proper snowguard installation.*

## GUTTERS

### 1. Downspouts

Observations:

- *One or more downspouts discharged roof drainage next to the foundation. This condition can effect the ability of the soil to support the weight of the structure above and can cause damage related to soil/foundation movement. Recommend the installation of downspout extensions to discharge roof drainage a minimum of 6 feet from the foundation.*





## SIDING

### 1. Wood Siding

#### Observations:

- *Wood siding covering the exterior walls of the home exhibited moderate general weathering, and deterioration commensurate with its age.*
- *The siding had areas in which nail heads were protruding. This condition can be caused by long-term expansion and contraction of the wood siding in response to changes in moisture content. The Inspector recommends re-fastening as needed by a qualified contractor.*
- *Wood siding covering exterior walls of the home had areas of advanced deterioration that were cracked allowing moisture intrusion of the wall assembly. The Inspector recommends replacement or repair of siding in any such areas to help prevent damage from moisture intrusion to the home materials and the exterior wall structure. All work should be performed by a qualified contractor.*



## EXTERIOR TRIM

### 1. Soffits

#### Observations:

- *At the time of the inspection, the Inspector observed no deficiencies in the condition of the soffits.*

### 2. Fascia

#### Observations:

- *At the time of the inspection, the Inspector observed no deficiencies in the condition of the fascia.*

# EXTERIOR TRIM Continued

## EXTERIOR ELECTRICAL

### 1. Exterior Receptacles

#### Observations:

- *Although electrical receptacle on the right side deck was enclosed in weatherproof enclosure, no Ground Fault Circuit Interrupter (GFCI) protection was provided to the receptacle on the right side of the house.*

## REAR DECK

### 1. Deck Foundation

#### Observations:

- *Wooden posts supporting the deck have suffered erosion of soil beneath that could eventually cause structural failure. This condition should be corrected by a qualified contractor.*



### 2. Deck Planking

#### Observations:

- *Deck planking (the walking surface) had moderate wear or deterioration visible at the time of the inspection. Routine maintenance will improve its lifespan.*



## REAR DECK Continued



### 3. Deck Guardrails

#### Observations:

- *At the time of the inspection, the deck guardrail assemblies exhibited moderate deterioration. Providing routine maintenance will extend the long-term service life of the guardrails.*



## REAR DECK Continued



## RIGHT SIDE DECK

### 1. Deck Attachment to Home

Observations:

- *The deck was attached to the home with a ledger bolted to the exterior of the foundation walls.*

### 2. Deck Guardrails

Observations:

- *Inspection of guardrails typically includes examination of the following:*
  - *attachment to the deck;*
  - *attachment to the home structure;*
  - *general condition; and*
  - *safety deficiencies.*
- *At the time of the inspection, the Inspector observed no deficiencies in the condition of the deck guardrail assemblies.*

*Inspection of guardrails typically includes examination of the following:*

- *attachment to the deck;*
- *attachment to the home structure;*
- *general condition; and*
- *safety deficiencies.*

## FOUNDATION

## FOUNDATION Continued

### 1. CMU Foundation Walls

Observations:

- *The visible portions of the foundation walls were constructed of concrete masonry units (CMU) commonly called "concrete block".*
- *At the time of the inspection, the Inspector observed no deficiencies in the condition of the Concrete Masonry Unit (CMU) foundation walls.*

## ATTIC

### 1. Truss Roof Structure

Observations:

- *The inspector observed no deficiencies in the condition of the visible portions of the roof trusses. At the time of the inspection, portions of the trusses were hidden beneath thermal insulation.*

### 2. Roof Sheathing

Observations:

- *The roof appeared to be sheathed with 7/16-inch plywood.*
- *The Inspector observed no deficiencies in the condition of the roof sheathing at the time of the inspection.*

### 3. Thermal Insulation

Observations:

- *The attic floor was insulated with blown-in **cellulose**.*
- *Attic floor insulation depth averages 8 to 10 inches. The Inspector recommends installing additional insulation to comply with local energy codes.*

### 4. Attic Ventilation

Observations:

- *Soffit vents were installed as part of the roof structure ventilation system.*
- *Continuous ridge vents were installed as part of the roof structure ventilation system.*
- *Gable vents were installed to ventilate the attic space.*

### 5. Room Vent Terminations

Observations:

- *A bathroom exhaust vent terminated in the attic instead of at the home exterior. This condition can raise moisture vapor levels in the attic to the point at which home materials are damaged or unhealthy conditions related to mold develop. The Inspector recommends correction by a qualified contractor.*

## ATTIC Continued



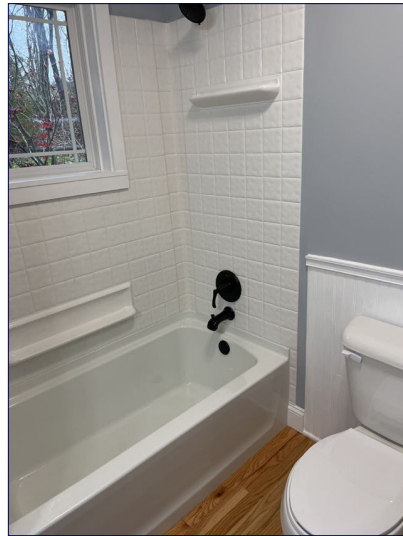
## GENERAL INTERIOR

### 1. Interior Photos





## GENERAL INTERIOR Continued



## GENERAL INTERIOR Continued





## GENERAL INTERIOR Continued



## GENERAL INTERIOR Continued

### 2. Ceiling

Observations:

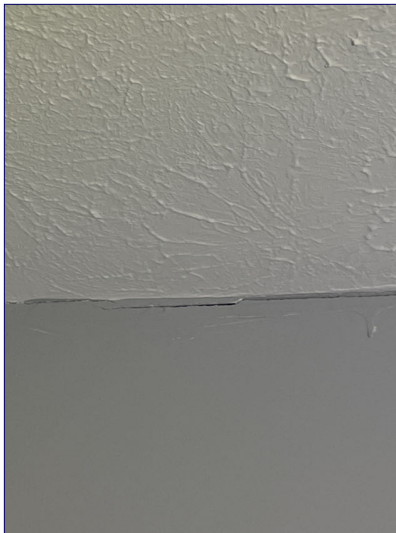
- *Patching was visible in the ceiling.*



### 3. Walls

Observations:

- *Minor cracks at the corners of doors and windows in walls appeared to be the result of long-term settling. Some settling is not unusual in a home of this age and these cracks do not appear to be a structural concern.*



### 4. Ceiling Fan

Observations:

- *A ceiling fan installed in the bedroom was inoperable. The problem may be the switch, wiring in the wall/ceiling, or problems with the ceiling fan. The inspector recommends evaluation and any necessary work be performed by a qualified contractor.*

## GENERAL INTERIOR Continued

### WINDOWS

#### 1. Window Condition

Observations:

- *The Inspector observed no deficiencies in the interior condition and operation of windows of the home.*

### DOORS

#### 1. Exterior Door Condition

Observations:

- *A door to the exterior at the front entry exhibited light damage. This damage appeared to be from an attempt at forced entry.*



#### 2. Interior Door Condition

Observations:

- *At the time of the inspection, the Inspector observed no deficiencies in the condition of the interior doors.*

### FLOORS

## FLOORS Continued

### 1. Wood Floor Condition

Observations:

- *At the time of the inspection, wood floors in the living room exhibited areas of moderate surface wear. You may wish to consult with a qualified contractor to discuss options and costs for repair.*



## KITCHEN

### 1. Sink

Observations:

- *At the time of the inspection, the Inspector observed no deficiencies in the condition and operation of the kitchen sink.*

### 2. GFCI Receptacles

Observations:

- *Electrical receptacles in the kitchen had ground fault circuit interrupter (GFCI) protection which responded to testing in a satisfactory manner at the time of the inspection.*

- *No ground fault circuit interrupter (GFCI) protection of home electrical receptacles was provided in the kitchen at the time of inspection.*



## KITCHEN Continued



### 3. Range

#### Observations:

- *The electric stove had one or more inoperable burners. The Inspector recommends service by a qualified technician.*



### 4. Range Condition

#### Observations:

- *The range was not fastened to the floor. A child standing on the open oven door could overturn the range. This condition is a life-safety issue. Recommend installation of an approved anti-tip device by a qualified contractor.*

### 5. Garbage Disposal

#### Observations:

- *The garbage disposal was excessively noisy. The Inspector recommends service by a qualified plumbing contractor.*

## KITCHEN Continued

### 6. Cabinets

Observations:

- *At the time of the inspection, the Inspector observed no deficiencies in the condition of the kitchen cabinets.*

### 7. Countertops

Observations:

- *At the time of the inspection, the Inspector observed no deficiencies in the condition of the kitchen countertops.*

## LAUNDRY ROOM

### 1. Dryer Venting

Observations:

- *No dryer exhaust duct connection was provided for the dryer. Lack of proper dryer exhausting to the exterior may result in excessively high humidity levels that can damage home materials or components and may encourage microbial growth like mold. Lack of proper dryer exhaust duct can also result in the accumulation of lint in the home. Lint is combustible and its accumulation is a potential fire hazard and a possible health hazard from the inhalation of particulates. The Inspector recommends proper installation of an Underwriter's Laboratory (UL)-approved dryer vent for safety reasons. Dryer ducts should be cleaned annually to ensure that safe conditions continue to exist. All work should be performed by a qualified contractor.*

## HALLWAY BATHROOM

### 1. GFCI Receptacles

Observations:

- *Electrical receptacles in this bathroom had ground fault circuit interrupter (GFCI) protection that responded to testing in a satisfactory manner. The inspector tested a representative number of accessible receptacles only.*

### 2. Ventilation

Observations:

- *This bathroom had an operable source of ventilation at the time of the inspection.*



## HALLWAY BATHROOM Continued

### 3. Single Sink

Observations:

- *At the time of the inspection, the Inspector observed no deficiencies in the condition of this bathroom sink.*

### 4. Toilet Type/Operation

Observations:

- *The toilet in this bathroom was flushed and operated in a satisfactory manner.*

### 5. Bath Tubs

Observations:

- *The Inspector observed no deficiencies in the condition of bathtub components.*

*Tub inspection includes testing for:*

- *Functional flow;*
- *Functional drainage; and*
- *Operational shut-off valves, faucet, and diverter valve.*

## CRAWLSPACE

Crawlspaces are prone to water intrusion. Water intrusion in crawlspaces could be ongoing or it could be seasonal depending on the amount of rain that's fallen and/or the level of the water table at a given time. Even if the crawlspace of this structure was dry and/or showed no signs of moisture intrusion at the time of inspection, it doesn't necessarily mean that there hasn't been water issues in the past or that problems won't develop in the future. We recommend speaking with the current owner(s) about any moisture issues that they may have had in the past.

### 1. General Condition

Observations:

- *Inspection of the crawlspace typically includes visual examination of the following:*

- *Excavation*
- *Foundation*
- *Floor*
- *Framing*
- *Plumbing*
- *Electrical*
- *HVAC*
- *Insulation*
- *Pest (general evidence)*
- *General condition*
- *The crawlspace had a dirt floor.*

- *The floor of the crawlspace was covered with a plastic soil cover. Soil covers are installed to help minimize moisture evaporation into crawlspace air from the soil and sometimes as part of a radon mitigation plan. Edges at overlaps and the crawlspace perimeter were not sealed.*

## CRAWLSPACE Continued

### 2. Moisture Intrusion

#### Observations:

- In the crawlspace, moderate amounts of efflorescence was visible at some of the interior surfaces of the foundation walls. Efflorescence is a white, powdery residue left by moisture seeping through the foundation wall and its presence indicates high moisture levels in soil near the foundation. Excessively high moisture levels in soil supporting the foundation can cause various structural problems related to soil movement. The source of moisture should be identified and the condition corrected by a qualified contractor.*



### 3. Insulation

#### Observations:

- Thermal insulation was loose or missing. Insulation should be secured properly in place to help reduce heating costs.*



# FURNACE

## 1. Furnace Location

Observations:

- *The furnace was located in the crawlspace.*



## 2. Furnace Type

Observations:

- *The Furnace was electric.*

## 3. Furnace Operation

Observations:

- *This furnace responded adequately to the call for heat.*

## 4. General Condition

Observations:

- *At the time of the inspection, the Inspector observed no deficiencies in the condition of this furnace.*

*Inspection of the furnace typically includes examination/operation of the following:*

- *Cabinet interior and exterior*
- *Electrical shut-off*
- *Air filter and blower*
- *Plenum and ducts*
- *Response to the thermostat*
- *Adequate return air*
- *Automatic damper and controls*
- *Condensate drain components*

## FURNACE Continued

### 5. Blower

Observations:

- *The furnace blower did not appear to be operating at its full capacity. Recommend evaluation by a qualified HVAC technician.*

## CENTRAL AIR CONDITIONER

### 1. General Condition

Observations:

- *Inspection of the air-conditioning system typically includes visual examination of the following:*

- *compressor housing exterior and mounting condition;*
- *refrigerant line condition;*
- *proper disconnect (line of sight);*
- *proper operation (outside temperature permitting); and*
- *proper condensate discharge.*

*The system should be serviced at the beginning of every cooling season.*

- *At the time of the inspection, the Inspector observed no deficiencies in the condition of the air-conditioning system.*

### 2. System Response

Observations:

- *At the time of the inspection, the system responded to the call for cool air.*

## WATER HEATER

### 1. Water Heater Type

Observations:

- *This was an electric water heater. This type of water heater uses electric elements to heat water in the tank. These elements can often be replaced when they burn out. With heaters having two heating elements, the lower element usually burns out first. Heating elements should be replaced only by qualified plumbing contractors or HVAC technicians.*

### 2. Water Heater Location

Observations:

- *The water heater was located in the crawlspace.*

## WATER HEATER Continued



### 3. General Condition

Observations:

- *At the time of the inspection, the Inspector observed no deficiencies in the condition or operation of the water heater.*

### 4. Pressure Relief Valve/Pipe

Observations:

- *No discharge pipe was installed at the temperature/pressure relief (TPR) valve. The **TPR valve** is designed to open and release extremely hot water when water temperature or pressure inside the tank exceeds safe levels. With no discharge pipe installed, persons near the tank might be badly burned by hot water released by the TPR valve. The Inspector recommends that a properly-configured discharge pipe be installed by a qualified plumbing contractor.*

## WATER SUPPLY PIPES

### 1. Water Supply Pipe Material

Observations:

- *The visible home water supply pipes were half-inch copper.*

### 2. Water Supply Pipe Condition

Observations:

- *At the time of the inspection, the Inspector observed no deficiencies in the condition of the visible water supply pipes.*

### 3. Functional Flow

Observations:

- *All plumbing fixtures in the home exhibited functional flow at the time of the inspection.*

## WATER SUPPLY PIPES Continued

### DRAIN, WASTE, and VENT PIPES

#### 1. DWV Pipe Condition

Observations:

- *At the time of the inspection, the Inspector observed no deficiencies in the condition of the visible drain, waste and vent pipes.*

#### 2. Functional Drainage

Observations:

- *All plumbing fixtures in the home exhibited functional drainage at the time of the inspection.*

## ELECT SERVICE

#### 1. Service Drop

Observations:

- *The electrical service was supplied by overhead service cables.*
- *The Inspector observed no deficiencies in the condition of the service drop.*

*Components inspected included the following the service conductors, splice, drip loop, and point of attachment to the home.*

#### 2. Meter Condition

Observations:

- *The Inspector observed no deficiencies in the condition of the electric meter. Electric meters are installed by utility companies to measure home electrical consumption.*

## SERVICE PANEL

#### 1. Service Panel Location



## SERVICE PANEL Continued



### 2. Main Disconnect

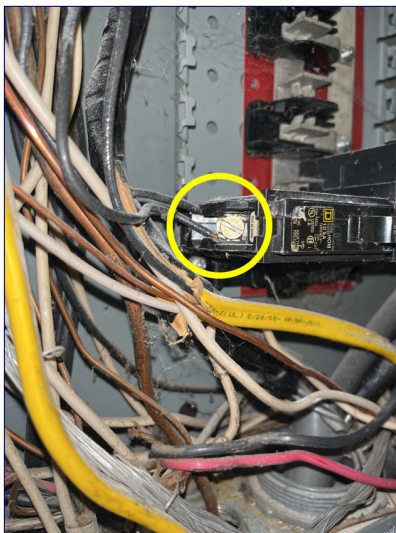
Observations:

- *The Inspector observed no deficiencies in the condition of the electrical service disconnect. It was inspected visually but was not operated.*
- *The main disconnect was located at the service panel.*
- *The service disconnect was a breaker type. A service disconnect is a device designed to shut off power to all overcurrent devices (circuit breakers or fuses) and branch circuits in the home.*
- *The electrical service disconnect was rated at 200 amps.*

### 3. Breakers

Observations:

- *In the service panel, two wires were connected to a breaker designed for only one wire. This is known as a "double-tap" and is a defective condition that should be corrected by a qualified electrical contractor.*



# SERVICE PANEL Continued

## SUB-PANEL

### 1. Panel Location

Observations:

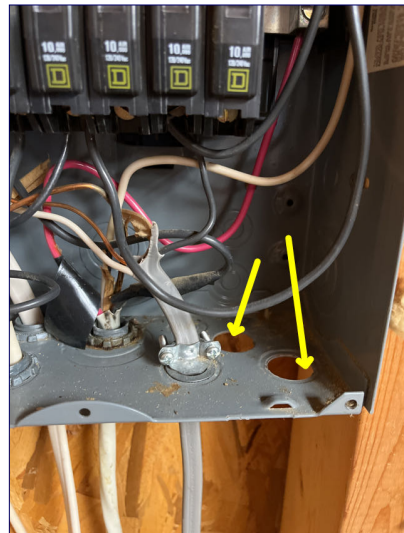
- *This sub-panel was located in- and controlled electrical circuits in- a building separate from the home.*



### 2. Cabinet Condition

Observations:

- *Unfilled holes or knockouts in this sub-panel may allow insect or rodent entry, or allow persons to come into contact with energized electrical components. This condition is a potential shock/electrocution hazard and should be corrected by a qualified electrical contractor.*



## SUB-PANEL Continued



### 3. Bonding

#### Observations:

- *The sub-panel was not grounded. This is a potential shock hazard and should be corrected by a qualified electrician.*

### 4. Equipment Grounding & Bonding

#### Observations:

- *Grounding and neutral conductors in this sub-panel terminated on the same bus bar. In sub-panels, neutral conductors must be electrically isolated from the grounding system components. This condition is improper and should be corrected by a qualified electrical contractor.*

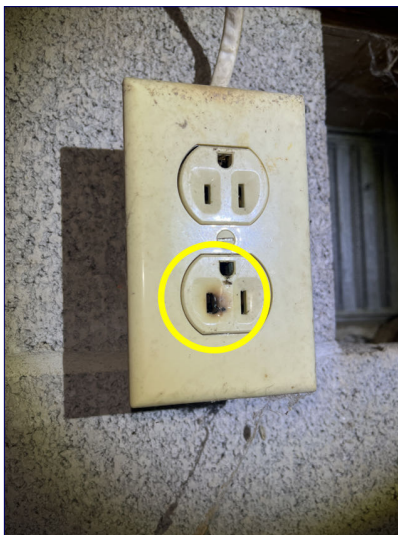
## BRANCH WIRING

### 1. Receptacle Deficiencies

#### Observations:

- *An electrical receptacle in the crawlspace exhibited visible scorching. This condition is a potential fire hazard and should be investigated and any repairs made by a qualified electrical contractor.*

## BRANCH WIRING Continued



### 2. Miswired Receptacles

#### Observations:

- *An electrical receptacle in the crawlspace had hot and neutral wires reversed. This condition should be corrected by a qualified electrical contractor.*
- *Several electrical receptacles in the out building had an open ground. Other receptacles in the home were grounded. This condition should be corrected by qualified electrical contractor.*



## BRANCH WIRING Continued

### 3. GFCI/AFCI Receptacles

#### Observations:

• No ground fault circuit interrupter (GFCI) protection of home electrical receptacles was provided in all required places at the time of inspection. Although GFCI protection may not have been required at the time the home was built, for safety reasons, the Inspector recommends that electrical receptacles located in basements, crawlspaces, garages, the home exterior, and interior receptacles located within 6 feet of a plumbing fixture be provided with ground fault circuit interrupter (GFCI) protection in good working order to avoid potential electric shock or electrocution hazards.

This can be achieved relatively inexpensively by:

1. Replacing an individual standard receptacle with a GFCI receptacle.
2. Replacing the circuit receptacle located closest to the electrical circuit overcurrent protection device (usually a breaker) with a GFCI receptacle.
3. Replacing the breaker currently protecting the electrical circuit that contains the receptacles of concern with a GFCI breaker.

• No arc-fault circuit interrupter (AFCI) protection was installed to protect electrical circuits in bedrooms. Safety standards with which new homes must comply require the installation of AFCI protection of all bedroom electrical receptacles. This type of protection is designed to detect electrical arcing, which is a potential fire hazard. Although AFCI protection was not required at the time the home was originally constructed, as general knowledge of safe building practices has improved with the passage of time, building standards have changed to reflect current understanding. The Inspector recommends updating the existing bedroom receptacles to provide AFCI protection.

All work should be performed by a qualified contractor.

## Glossary

Term	Definition
AFCI	Arc-fault circuit interrupter: A device intended to provide protection from the effects of arc faults by recognizing characteristics unique to arcing and by functioning to de-energize the circuit when an arc fault is detected.
Cellulose	Cellulose insulation: Ground-up newspaper that is treated with fire-retardant.
GFCI	A special device that is intended for the protection of personnel by de-energizing a circuit, capable of opening the circuit when even a small amount of current is flowing through the grounding system.
TPR Valve	The thermostat in a water heater shuts off the heating source when the set temperature is reached. If the thermostat fails, the water heater could have a continuous rise in temperature and pressure (from expansion of the water). The temperature and pressure could continue to rise until the pressure exceeds the pressure capacity of the tank (300 psi). If this should happen, the super-heated water would boil and expand with explosive force, and the tank would burst. The super-heated water turns to steam and turns the water heater into an unguided missile. To prevent these catastrophic failures, water heaters are required to be protected for both excess temperature and pressure. Usually, the means of protection is a combination temperature- and pressure-relief valve (variously abbreviated as T&P, TPV, TPR, etc.). Most of these devices are set to operate at a water temperature above 200° F and/or a pressure above 150 psi. Do not attempt to test the TPR valve yourself! Most water heating systems should be serviced once a year as a part of an annual preventive maintenance inspection by a professional heating and cooling contractor. From Plumbing: Water Heater TPR Valves