

# Fred Root & Associates

PO Box 8103 Colorado Springs, CO. 598-2189



Satisfied Customer

RE: Inspection at your new home

## SUMMARY

This is a summary review of our findings during this inspection and does not contain every detailed observation, but rather, a listing of those items we see as most significant or in need of attention at the present time. The items in this review do not necessarily relate to the contract between the buyer and seller regarding repair or maintenance of the property prior to transfer of ownership.

### **STRUCTURAL**

Location: Beam at the ceiling between the dining room and the kitchen

It appears that the structure in this location has been modified and there is noticeable deflection in the beam, and point load support for the roof structure may have been eliminated. I recommend further evaluation and certification by a qualified structural engineer.



### **ELECTRICAL**

The electrical service panel and/or main breaker are rated for a 200 amp service, but based on the size of the overhead service cables; it would appear that the actual service to the house may be lower.

**The safe and proper service amperage available at a property is set by the smallest of: the service conductors, the main disconnect fuse or switch, or the rated capacity of the electric panel itself.**

**Watch out: for a new higher amps-rated electrical panel connected to old, smaller-capacity service entry cables.** A common defect found in upgrades of older equipment is the installation of a new 100-Amp panel and main breaker while failing to replace the old 60-amp service entry cables.



Keep in mind that by service entry cables I'm referring to the cables from the mast head (point of attachment of overhead wires to the building) down to the meter and from meter into the main switch or panel. Overhead wires, being cooled by open air, may be of a smaller diameter determined to be safe by the utility company for open air use.

An upgrade to the service entrance cables is recommended to accommodate today's lifestyles.

The height of the service entrance cables from the walkway does not meet current code requirements. Upgrading is recommended.

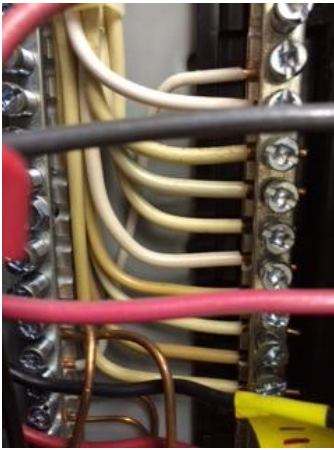
Location: All service panels

There are double taps and over fusing. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.



Location: Subpanel

The grounds and neutrals are bonded. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.



Location: NW inside corner of the house

There is an open junction box. This is a safety concern. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.



Location: Sprinkler system pump

There are exposed splices. This is a safety concern. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.



Location: Sprinkler system valve box near the street

The electrical cable insulation is damaged. This is a safety concern. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.



Location: East exterior wall of the sunroom, garage  
The GFCI outlets do not trip. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.



West exterior wall of the sunroom

Location: East and south sides of the cottage  
There are damaged/open conduit elbows.



Location: Hallway near the door to the sunroom  
The outlet is showing an open ground. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

Locations include, but may not be limited to: Crawlspace, East attic space, hydro-massage tub enclosure and Garage

There are improperly routed/secured cables and/or open junction boxes.



Location: NW bedroom / bathroom, office

There is a loose or open ground.

Location: Master Bathroom

The GFCI is not functional. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

## **DUCTS**

Location: Master bedroom, office and laundry room

Both the A/C and heat were run for some time, and airflow to these locations was severely restricted or not present. The ducting system includes automatically operated dampers, which is somewhat non-typical for homes of this size and the lack of airflow may be related to temperature differences and these dampers. I recommend further evaluation, certification and an instructional overview be provided to you regarding the operation of this system by the installer.

## **DOWNSPOUT EXTENSIONS**

Location: NW

The extension appears to have been crushed and flow is restricted. I recommend further evaluation and repair as necessary by a qualified contractor.



## **FIREPLACE**

Location: Both

The required safety clamps, which prevent the dampers from closing completely when a continuously burning pilot light is present, are missing. Correction is recommended.

## **AIR CONDITIONING**

Location: Cottage

The coolant tubing insulation is damaged. I recommend further evaluation and repair as necessary by a qualified contractor.



## **PLUMBING VENTS**

Location: Guest bathroom tub, garage utility tub

The units drain, but do not appear to be vented properly. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

## **WELL PRESSURE TANK**

Location: Cottage crawlspace

The unit has been installed on its side and is not supported properly. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.



## **INSULATION**

Location: Ridged foam insulation in attic and spray foam insulation in the crawlspace

A thermal and/or ignition barrier is required. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

## Do you need an ignition barrier?

This is where things get a little tricky. If a home has spray foam insulation in an attic or crawl space, the building code requires using materials or assemblies that offer some fire resistance but not as much as is required for a thermal barrier. If you've got spray foam insulation in an attic, for example, it's probably already separated from the living space by a thermal barrier. Most ceilings are made of 1/2" drywall. But the spray foam is still exposed to the attic and needs an ignition barrier.

In this case, you have a choice of several prescriptive materials approved by the code as ignition barriers:

- 1.5" mineral fiber insulation
- 1/4" wood
- 3/8" particleboard
- 1/4" hardboard
- 3/8" drywall
- 0.016" corrosion-resistant steel

Again, other materials and assemblies may be allowed based on tests described by the International Code Council Evaluation Service in their Acceptance Criteria 377. The types of spray foam insulation that I'm aware of that qualify to be sprayed without an ignition barrier are:

- [Classic Max](#) from Icynene
- [APX](#) from Demilec
- [Staycell One Step 255](#) from Preferred Solutions (See [this article from Green Building Advisor](#) for more info.)

When do you need an ignition barrier? According to the IRC and IBC, an attic or crawl space needs an ignition barrier over the spray foam if the space can be accessed but will not be used for storage or auxiliary living space. You don't need an ignition barrier if the space cannot be accessed without cutting into it, if it is not connected to other spaces, and if it does not communicate with other spaces.

Location: Old heating system piping in the crawlspace

There is what appears to be friable asbestos insulation. I recommend further evaluation and mitigation as necessary by a qualified / licensed contractor.



**ELECTREIC HEAT**

Location: West heaters in the cottage

These units did not respond to the thermostat at the time of inspection. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

**PLUMBING**

Location: Cottage

The water was off and supply piping was incomplete. The plumbing in this building could not be inspected.

There is no water heater present in the cottage.

I recommend further evaluation and repair as necessary by a qualified / licensed contractor.



## **SITE and BUILDING EXTERIOR**

Our inspection of the site includes slope, proper drainage, walkways, patios, fences, gates, vegetation, curbs, gutters, and retaining walls. Inspection of the exterior includes the siding and trim, windows, doors, foundation, soffits and eaves, flashing, decks, porches and railings. These items are visually inspected for deficiencies and proper function, abnormal wear and overall condition. Some items may not be visible due to soil, vegetation, storage and/or the nature of construction. In such cases these items are considered inaccessible.

### **BASIC INFORMATION**

Wall Covering: Brick and Vinyl

Primary Window Frame Material: Vinyl and Metal

Glass Type: Double Glazed

Primary Window Types: Casement

### **WINDOWS**

Locations include, but may not be limited to: North and West

There are approximately 11 screens missing or not installed.

### **DOWNSPOUT EXTENSIONS**

I would suggest the outlet ends of the underground extensions be screened to prevent debris or pest blockage. Regular cleaning is recommended.



Location: NW

The extension appears to have been crushed and flow is restricted.

Locations include, but may not be limited to: Cottage

The downspouts need extensions. Site drainage and roof runoff management should be optimized.

### **CRAWLSPACE VENTS**

The vents are not all operable (able to open / close). Cleaning and/or lubrication are recommended. Some vents are slightly below grade. The bark ground cover should be cleared to prevent blockage.



## **ELECTRICAL**

Location: NW inside corner of the house

There is an open junction box. This is a safety concern.

Location: Sprinkler system pump

There are exposed splices. This is a safety concern.

Location: Sprinkler system valve box near the street

The electrical cable insulation is damaged. This is a safety concern.

Location: East and south sides of the cottage

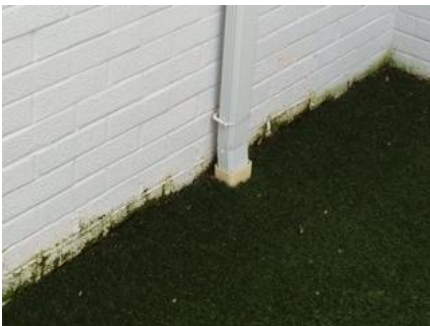
There are damaged/open conduit elbows.

I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

## **PATIO**

Location: NW

Poor pitch of the patio and/or improper function of the downspout extension appear to be preventing proper drainage of the patio. In addition, the bark ground cover is higher than the patio and is acting as a dam. Correction is recommended.



## **AIR CONDITIONING**

Location: Cottage

The coolant tubing insulation is damaged. I recommend further evaluation and repair as necessary by a qualified contractor.

## **TRIM**

Location: Window sill at the west wall of the sunroom

There is some rot that has been filled and peeling paint.



Location: Cottage window trim  
The trim is rotting. Repair or replacement is recommended.



### **GRADE / SITE DRAINAGE**

Locations include, but may not be limited to: NW inside corner of the house, cottage  
The negative grade should be corrected. Site drainage and roof runoff management should be optimized.



### **SIDING**

Location: Cottage  
The bottom course of siding is damaged in numerous locations.



**COMMENTS**

All inspected components are generally in good condition, except as noted.

## **ROOFING**

A roof system consists of the deck or sheathing, the shingles or covering, numerous penetrations, such as plumbing vents, furnace exhaust vents, attic vents, skylights, and chimneys. Each penetration should have approved flashing and be sealed to prevent water penetration. Most roofs also have a drainage system (valleys and gutters). The rafters and/or trusses will be covered in the attic section of this report. We will inspect these items for damage, deterioration and improper installation by walking the roof, when the slope, material, and weather permit. If we are unable to walk the roof, it will be checked from the edge with a ladder, and/or from the ground with binoculars. Opinions stated herein concerning the roof are based on the general condition of the roof system as evidenced by our visual inspection. These do not constitute a warranty that the roof is, or will remain, free of leaks.

### **BASIC INFORMATION**

Roof Slope: 7/12

Material: Asphalt/Fiberglass strip shingle, rubber membrane

Layers: 1

Approximate Age: 1-4

### **INSPECTION METHOD**

Walking the roof surface was the method of inspection.

### **ROOF COVERING**

The roof covering appears to be properly installed and in good condition. It is functioning at the moment of inspection. This does not imply perfection, absence of minor defects, or absence of wear and tear.

### **DRAINAGE**

The valleys and/or gutters appear to be adequate to drain water from the roof, except as noted.

Location: Cottage

The gutters need cleaning.

### **CHIMNEY**

Location: West and East chimneys

Although some flues are inactive, the installation of rain caps is recommended.



### **VENTS**

Location: Water heater exhaust vent

I would recommend that the top of the vent be elbowed over to prevent water penetration down the vent.



NOTE: Vent has the appearance of a DWV vent, but is the exhaust vent for the on demand water heater and is located on the east slope of the garage roof.

**COMMENTS**

All inspected components are generally in good condition, except as noted.

## INTERIOR

Our inspection of the interior is done on a room-by-room basis and includes the present condition of the walls, floors ceiling, trim, steps, stairways, fireplace, smoke detectors, balconies and railings. In addition, we check the condition and operation of electrical outlets, switches and fixtures, doors, windows, exposed plumbing components and fixtures, appliances and hardware. These features are visually examined for proper function, excessive wear and general state of repair. Unless a noteworthy condition is found, each individual room will not be noted. Some of these components may not be visible because of furnishings and/or storage. In such cases these items cannot be inspected.

### **BASIC INFORMATION**

Ceiling Material: Drywall, Wood

Primary Floor Material: Carpet, Wood and Tile

Wall Material: Drywall

### **SURFACES**

In mostly above average condition for its age, showing limited wear and tear and numerous upgrades.

### **DOORS**

Location: Upper level cedar lined closet

The door rubs the carpet and should be trimmed.

Location: Mechanical closet, NW bedroom

The bottom guide for the bypass doors is broken.

Location: Office

The door is warped.

Location: Office bathroom

The door has been notched to clear the commode.



### **FIREPLACE**

Location: Both

The required safety clamps, which prevent the dampers from closing completely when a continuously burning pilot light is present, are missing. Correction is recommended.

## KITCHEN

The kitchen is visually inspected for proper function of components, active leakage, excessive or unusual wear and general state of repair. We inspect built-in appliances to the extent possible using normal operating controls. Freestanding stoves are operated but portable dishwashers, and portable microwave ovens are not tested.

### **BASIC INFORMATION**

Sink: Stainless Steel

Receptacles: Three Prong and Grounded, without GFCI Protection

### **OUTLETS**

Upgrade needed

A GFCI protected circuit is recommended for any outlets within 6-feet of the sink.

### **DISHWASHER**

The drain line needs to be routed with a high loop, which will help prevent cross-contamination.

Correction is recommended.

## **BATHROOMS**

Bathrooms are visually inspected for proper function of components, active leakage, excessive or unusual wear and general state of repair. Fixtures are tested using normal operating features and controls.

### **BASIC INFORMATION**

Toilet: Ceramic Unit with Porcelain Finish

Wash Basins: Porcelain

Bathtub: Plastic/Fiberglass

Shower: Mastic Set Ceramic Tile

Receptacles: Three Prong and Grounded, with GFCI Protection

GFCI Location: Bathrooms

### **OUTLETS**

Location: Master Bathroom

The GFCI is not functional. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

### **TUB**

Location: Guest bathroom

The unit does not drain freely and may not be vented properly. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

The electrical box is not properly secured. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

The access panel is shimmed to hold it in place.





## **FLOORING**

Location: Quest bedroom /bathroom

Caulking or grout is needed at the tub / floor juncture.

## **ATTIC**

The attic contains the roof framing and ceiling insulation. It may serve as a raceway for components of the mechanical and electrical systems. There are often heating ducts, electrical wiring and appliance vents in the attic. We visually examine the attic components for proper function, excessive or unusual wear, and general state of repair, leakage, venting and misguided improvements. Where walking in an unfinished attic can result in damage to the ceiling, inspection is from the access opening only.

## **VENTILATION**

Our feeling regarding attic/roof cavity ventilation is that “you can never have too much”. Attic/roof cavity ventilation can be provided by eave, gable, and ridge vents as well as by automatic and wind driven fans. We encourage use of any or all of the above.

The attic ventilation meets all present standards.

## **ROOF FRAMING**

The rafter/trusses are in good condition and have performed well since their installation.

## **INSULATION**

The attic has cellulose and fiberglass blanket insulation. The level of insulation would appear to provide an R-30 insulating value in most locations. This provides fairly good resistance to heat transfer by present standards, but could be improved. Some locations such as under some planking, the levels of insulation are less.

Location: Ridged foam insulation

A thermal and/or ignition barrier is required. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

## **GARAGE**

### **FLOOR**

The floor is a concrete slab. The visual portions of the floor appear to be in good condition.

**OVERHEAD DOORS**

The garage door(s) was operated and appears to be in good condition.

**DOOR OPENER**

The garage door opener(s) operated properly to raise and lower the door(s).

Location: Double overhead door

The close force needs to be lowered. I would recommend that you adjust the close force to its lowest possible setting, and then try to close the door. If it reverses, turn up the close force slightly, and try again. Repeat this process until the door closes. The adjustment will then be at its lowest possible setting.

**HOUSE FAN**

The louvers on the house fan in the garage did not open when the unit was turned on. Correction is recommended.

**STEPS**

Location: House to the garage

The rises are not equal as required, which can be a tripping stumbling hazard. Correction is recommended.

**COMMENTS**

The surfaces, hardware, windows, and doors were found to be in good working order at the time of our inspection, except as noted.

## **HEATING**

A heating system consists of the heating plant, operation and safety controls, venting and the means of distribution. These items are visually examined for proper function, excessive or unusual wear and general state of repair. Regular servicing and inspection of fuel burning heating systems by qualified technicians is strongly encouraged.

### **BASIC INFORMATION**

System Type: Forced Hot Air, Electric

BTU Input Rating: 120,000

Age: 2003

Filter Type: Disposable Hepa-Type and Electronic Air Cleaner

### **SYSTEM NOTES**

Forced air furnaces operate by heating a stream of air moved by a blower through a system of ducts. Important elements of the system include the heat exchanger; exhaust vent, blower, controls, ducting, and combustion air supply.

### **GAS SUPPLY**

The gas piping includes a 90-degree shutoff valve for emergency use. The valve was not tested at the time of inspection. This age and style of valve is found to be trouble free. The gas connector is an approved type.

### **BURNERS**

The burners were inspected and found to be in working condition.

### **FURNACE HEAT EXCHANGER**

The heat exchanger appears to be serviceable, but is not all visible for inspection. The airflow was tested for CO and none was found.

### **IGNITION SYSTEM**

The heating unit is equipped with an electronic ignition system, which is an energy saving feature that allows operation without the need for a continuously burning pilot light.

### **COMBUSTION AIR**

Combustion air provides the oxygen for fuel burning appliances. Adequate ventilation around all fuel burning appliances is vital for their safe operation. The air can come from inside or outside, providing industry standards are met.

Combustion air in this building is provided by infiltration, obtained by free communication of exterior spaces.

### **DUCTS**

The ducts appear to be properly installed and in good condition, except as noted.

Location: Master bedroom, office and laundry room

Both the A/C and heat were run for some time, and airflow to these locations was severely restricted or not present. The ducting system includes automatically operated dampers, which is somewhat non-typical for homes of this size and the lack of airflow may be related to temperature differences and these dampers. I recommend further evaluation, certification and an instructional overview be provided to you regarding the operation of this system by the installer.

Location: Cold-air return

The cold air returns are in the office and hall to the master bedroom. If these doors are shut, return air in the center section of the house will be restricted.

### **CLEARANCE**

There is adequate clearance to combustible materials in the area around the heating unit as long as the space is not used for storage. We recommend good housekeeping in this area.

### **COMMENTS**

This unit is near the beginning of its expected service life. With proper, routine maintenance it could be reliable for some time.

### **AIR CONDITIONING**

Location: Cottage

The coolant tubing insulation is damaged. I recommend further evaluation and repair as necessary by a qualified contractor.

### **HUMIDIFIER**

The unit is in good operating condition, except as noted.

Air leakage is occurring when the damper is closed, which causes the unit to make an annoying noise. Sealing the joints is recommended.

### **ELECTRIC HEAT**

Location: West heaters in the cottage

These units did not respond to the thermostat at the time of inspection. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

## **PLUMBING SYSTEM**

A plumbing system consists of the domestic water supply lined, waste and vent lines and gas lines. Inspection of the plumbing system is limited to visible faucets, fixtures, valves, drains, traps, exposed pipes and fittings. These items are examined for proper function, excessive or unusual wear, leakage and general state of repair. The hidden nature of piping prevents inspection of every pipe and joint. A sewer lateral test, necessary to determine the condition of the underground sewer lines, is beyond the scope of this inspection. If desired, a qualified individual could be retained for such a test. Our review of the plumbing system does not include on site and/or private water supply and waste disposal systems. Review of these systems requires a qualified specialist.

### **BASIC INFORMATION**

Domestic Water Source: Public Source, Well

Main Water Line: Copper

Supply Piping: Copper

Waste Disposal: Municipal

Waste Piping: Plastic, Cast Iron

Water Pressure: Normal

Other Installed Systems: Sprinkler System Not Tested

### **MAIN SUPPLY**

There was no evidence of leakage at the exposed and accessible main supply, but some corrosion was noted. Condensation and poor ventilation of the crawlspace would appear to be the contributing factors. Improving ventilation in the crawlspace is recommended.

### **INTERIOR SUPPLY**

The exposed and accessible supply piping generally appears to be properly installed and in good condition, except as noted.

Location: Old heating system piping in the crawlspace

There is what appears to be friable asbestos insulation. I recommend further evaluation and mitigation as necessary by a qualified / licensed contractor.

### **DRAIN LINES**

The visible drain piping appears to be properly installed and in good condition,

### **VENT LINES**

The vent piping for the waste system appears to be properly installed and in serviceable condition, except as noted.

Location: Guest bathroom tub, garage utility tub

The unit does but does not appear to be vented properly. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

### **WATER PRESSURE**

The system water pressure, as measured at the hose bibs, is within the range of normal.

### **GAS LINES**

The gas piping appears to be properly installed and in fair condition, with some rusting of the black iron piping. We detected no evidence of leakage at any of the exposed gas piping. Pressure testing may reveal leaks, but this procedure is beyond the scope of our inspection.

### **WELL PRESSURE TANK**

Location: Cottage crawlspace

The unit has been installed on its side and is not supported properly. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

### **COMMENTS**

The plumbing system is in good condition, where visible, and seems to be operating properly, except as noted.

Location: Cottage

The water was off and supply piping was incomplete. The plumbing in this building could not be inspected. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

## **DOMESTIC HOT WATER**

Our review of water heaters includes the tank, water and gas connections, electrical connections, venting and safety valves. These items are examined for proper function, leakage and general state of repair. The hidden nature of piping and venting prevents inspection of every pipe, joint, vent and connection. Since hot water demand is strictly a function of life-style, we cannot render opinions as to the adequacy of any domestic hot water supply as it might relate to your particular needs.

### **BASIC INFORMATION**

Location: House – Laundry, Cottage - None

Energy Source: Gas

Capacity: On demand

Age: 2-4 years

### **T/P RELIEF VALVE**

The temperature and pressure relief valve is properly installed and in working condition.

### **VENTING**

The water heater exhaust vent appears to be properly installed and working properly, except as noted.

Location: Water heater exhaust vent

I would recommend that the top of the vent be elbowed over to prevent water penetration down the vent. See picture in the summary section.

### **COMBUSTION AIR**

Combustion air is provided by infiltration, obtained by free communication of exterior spaces.

### **WATER CONNECTIONS**

The water heater is equipped with a cold-water inlet shut-off valve.

### **COMMENTS**

The water heater is in operable condition, but near the beginning of its expected service life. With routine maintenance it could be reliable for some time yet.

## ELECTRICAL SYSTEM

An electrical system consists of the service, distribution wiring and convenience outlets (switches, lights and receptacles). Our inspection of the electrical system includes the exposed and accessible conductors, branch circuitry, panels, overcurrent protection devices, and a random sampling of convenience outlets. Capacity, grounding and circuit protection are focal points. We look for adverse conditions such as improper installation of aluminum wiring, lack of grounding, overfusing, exposed wiring, running splices, reversed polarity and fused neutrals. The hidden nature of the electrical wiring prevents inspection of every length of wire.

### **BASIC INFORMATION**

Service Entry Into Building: Overhead

Voltage Supplied By Utility: 120/240

Capacity: 100 Amperes

System Grounding Source: Water Supply Piping, Driven Rod

Branch Circuit Protection: Circuit Breakers

Wiring Material: Copper

Wiring Method: Non-Metallic Shielded Cable

### **ELECTRICAL SERVICE ENTRANCE**

The electrical service panel and/or main breaker are rated for a 200 amp service, but based on the size of the overhead service cables; it would appear that the actual service to the house may be lower.

**The safe and proper service amperage available at a property is** set by the smallest of: the service conductors, the main disconnect fuse or switch, or the rated capacity of the electric panel itself.

**Watch out: for a new higher amps-rated electrical panel connected to old, smaller-capacity service entry cables.** A common defect found in upgrades of older equipment is the installation of a new 100-Amp panel and main breaker while failing to replace the old 60-amp service entry cables.

Keep in mind that by service entry cables I'm referring to the cables from the mast head (point of attachment of overhead wires to the building) down to the meter and from meter into the main switch or panel. Overhead wires, being cooled by open air, may be of a smaller diameter determined to be safe by the utility company for open air use.

An upgrade to the service entrance cables is recommended to accommodate today's lifestyles.

The height of the service entrance cables from the walkway does not meet current code requirements. Upgrading is recommended.

### **SERVICE PANEL**

The main service panel is in good condition with circuitry properly installed and fused correctly, except as noted.

There are open twists outs that should be plugged.

Most panels have no room for expansion.

Location: All service panels

There are double taps and over fusing. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

Location: Subpanel

The grounds and neutrals are bonded. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

## **WIRING**

Location: Exterior at the NW inside corner of the house, crawlspace

There is an open junction box. This is a safety concern.

Location: Sprinkler system pump

There are exposed splices. This is a safety concern.

Location: Sprinkler system valve box near the street

The electrical cable insulation is damaged. This is a safety concern.

Location: East and south sides of the cottage

There are damaged/open conduit elbows.

Locations include, but may not be limited to: Crawlspace, East attic space, hydro-massage tub enclosure and Garage

There are improperly routed/secured cables and/or open junction boxes.

I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

## **ELECTRICAL OUTLETS: OVERALL**

For reference, as receptacles are discussed below, present standards for typical room plugs require grounded, 3 prong receptacles within six feet of any point on all walls. Upgrading is required in older buildings only during remodeling.

We checked a representative number of outlets and found they were operating properly and in good condition, except as noted.

Location: Master Bathroom

The GFCI is not functional. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

Location: NW bedroom / bathroom

There is a loose or open ground.

Location: Hallway near the door to the sunroom

The outlet is showing an open ground. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

Location: East exterior wall of the sunroom, garage

The GFCI outlets do not trip. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

Location: Upper level, North wall of the living room

The outlet spacing does not meet current code requirements in some locations.

NOTE: In regards to the living room, outlet spacing is dictated by the windows and radiators, and floor outlets would have to be installed if additional outlets at this wall were desired.



Location: South outlets in the family room

The outlets were not operable at the time of inspection. Some outlets may be switched, but the switches were not located at the time of inspection.

Location: Quest bedroom / bathroom tub

The electrical box is not properly secured. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

### **ELECTRICAL SWITCHES: OVERALL**

We checked a representative number of switches and found they were operating properly and in good condition, except as noted.

Location: House and cottage

There were several switches that had no readily apparent function.

### **LIGHT FIXTURES: OVERALL**

The light fixtures in this building are in good condition.

### **COMMENTS**

The electrical system is in operable condition, but with several instances of needed upgrading, repair or correction observed.

## **SUB - STRUCTURE**

The structural elements of a building include the foundation, footings, all lower support framing and components, wall framing and roof framing. These items are examined, where visible, for proper function, unusual conditions and general state of repair. Many structural components are inaccessible because they are buried below grade or behind finishes. Therefore, much of the structural inspection is performed by identifying resultant symptoms of movement, damage and deterioration. Where there are no visible symptoms, conditions requiring further review or repair may go undetected and identification will not be possible. We make no representations as to the internal conditions or stability's of soils and concrete footings and foundations, except as exhibited by their performance.

### **BASIC INFORMATION**

Foundation Type: Perimeter

Foundation Materials: Concrete Block

Exterior Wall Support: Brick

Floor Structure: Joists over Beams, Posts

### **ACCESS**

The crawlspaces were accessible from interior scuttle holes.

### **STRUCTURAL**

All visible structural elements are of standard materials, have been professionally installed, and are in good condition, except as noted.

Location: Beam at the ceiling between the dining room and the kitchen

It appears that the structure in this location has been modified and there is noticeable deflection in the beam, and point load support for the roof structure may have been eliminated. I recommend further evaluation and certification by a qualified structural engineer.

Location: Upper level

The headroom does not meet current code requirements.

### **MOISTURE**

Location: House

The crawlspace was dry at the time of our inspection, and there were no adverse conditions or damage observed related to excessive moisture.

Location: Cottage

The crawlspace was wet at the time of inspection.

Leakage from the water heater may have been the source, but with the water off, the exact source could not be determined.

### **VENTILATION**

Location: House

Ventilation in the crawlspaces is provided by vents and is adequate, except as noted.

Location: Cottage, house

Ventilation should be improved.

### **FOUNDATION**

All visible portions of the foundation appear to be in good condition, except as noted.

Location: Spray foam insulation

A thermal and/or ignition barrier is required. I recommend further evaluation and repair as necessary by a qualified / licensed contractor.

**COMMENTS**

All the visible elements appear to be in good condition and are performing as intended, except as noted.