Date: 24-Sep-2016

Inspection No. 141126-213

Visual Property Inspection

115 Craven Rd
Toronto, ON M4L 2Z4

Prepared for :

The Weir Team

Phone No. : (416) 465-4545

Inspected by :

Allen Ottaway
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Report Commentary

Date: 24-Sep-2016 115 Craven Rd, Toronto, ON M4L 2Z4

This summary is not the entire report. The complete report may include additional information of concern to the client. It is recommended that the client read the entire report.

1.0 Property and Site

1.1 Front Porch Rail

Install handrail for safety

2.0 Exterior

2.1 Window Exterior

All windows have been replaced recently and are in good condition.

3.0 Roof Structure

3.1 Main Roof

Budget to replace worn shingles above dormer and shingles being used for siding at the front of the house. The rest of the shingles appear to be in good condition.

3.2 Sec. Roof Life Expectancy

Torched down membrane over flat roof is in good condition. Remove debris to prolong life. Seller advises it is approximately 8 years old. Typical life expectancy is 10 years. Inspect on an annual basis to maintain performance.

4.0 Electrical Service

4.1 Service Size

100 amp service.

4.2 Circuit Wires/Receptacles

Install GFCI receptacles on the exterior and kitchen to promote safety.

Terminate exposed wires inside a junction box or remove to prevent hazards from exposed wire.

4.3 Bonding

Provide bonding to water and gas lines to promote ground system continuity. Concealed at time of inspection.

5.0 Heating

5.1 Heating System

High efficiency furnace is 11 years old and functioning as intended. Typical life expectancy is 20 years.

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6.0 Plumbing Components

6.1 Hot Water Tank

Tank less hot water on demand system is 13 years old and functioning as intended. See info series sheet fore more information.

7.0 Interior Living Spaces

7.1 Railing

Install handrail to promote safety

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Limitations

☑ Vegetation/Tree/Shrub ☐ Vines ☐ Debris/Obstruction
☐ Snow/Ice Cover
AGE OF HOME 75+

Conditions

☑ Sunny/Mostly Sunny ☐ Cloudy/Mostly Cloudy ☐ Rain/Wet Conditions
☐ Snow/Ice Conditions
Approx. Temperature 20 Celsius

Building

☑ 2 Story ☐ Duplex ☐ Condo ☐ Townhome

Recommend CO detector installation as required by law within 15 feet of all bedrooms for occupant safety.

All smoke detectors over 10 years old should be replaced for safety as a precautionary measure. Some have a limited lifespan and older technology detectors are not as effective as newer ones.

Inspection limited by furnishings throughout the home including but not limited to furniture, blinds, curtains, wall & floor coverings, possibly fresh paint, boxes, appliances, clothes, items stored under some or all sinks, and storage items

This is not a building code inspection. Local codes, city and county, can vary significantly and change regularly over time, and are not a part of this home inspection.

Landscaping

☑ Bushes/Hedge/Flower Bed ☐ Vine ☐ Slopes To House

Front Porch Rail

☐ Wood ☐ Metal ☐ Composite

Install handrail for safety

Front Porch Light — Operational

☐ Unsecured ☐ Appears to be sensor activated ☑ Representative # Inspected/Tested

Deck(s)/Patio(s)

☐ Slopes to House ☑ Wood/Composite ☐ Paving Stone/Block/Brick
☐ Typical Cracking ☐ Concrete

Retaining Wall

☐ Wood ☐ Metal ☑ Concrete ☐ Leaning slightly - Typical

Exterior

Limitations

- [ ] Insulation Conceals
- [ ] Clearance
- [ ] Debris/Obstruction
- [ ] Obstructed/No or Partial Access
- [x] Bushes/Vines/Tree Obstructions
- [ ] Snow/Ice Cover

Foundation Wall

- [ ] Stone/Flagstone
- [ ] Brick
- [ ] Concrete
- [ ] Block
- [ ] Preserved Wood
- [ ] Partially Concealed
- [ ] Hairline Cracking-typical
- [x] Completely Concealed

Exterior Walls

- [x] Wood/Composite
- [ ] Stucco
- [x] Vinyl/Aluminum
- [ ] Brick/Stone
- [ ] On Wood Framing

Ensure proper caulking and weather seal at all required locations and junctions such as windows, doors, dissimilar materials junctions, etc.

Window Exterior

- [ ] Wood
- [ ] Metal
- [ ] Vinyl
- [x] Wood Int/Vinyl or Metal Cla

All windows have been replaced recently and are in good condition.

Exterior Lighting

Operational

- [ ] Not all lights tested
- [ ] Unsecured - repair
- [x] Representative # Inspected/Tested

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Roof Structure

Inspected By:

☐ Binocular ☐ Roof Edge ☑ Walk On ☐ No Access

Limitations

☐ Deck/Patio ☐ Solar Panels ☐ Gravel Cover ☐ Steep Slope ☐ Height
☐ Snow/Ice Cover ☐ Rain - Too Slippery ☐ Material Too Slippery

Main Roof

☐ Flat ☑ Gable ☐ Hip/Valley ☐ Shed
Estimated Age 10 to 15 years

Budget to replace worn shingles above dormer and shingles being used for siding at the front of the house. The rest of the shingles appear to be in good condition.

Gutter/Downspout

☐ Galvanized ☐ Plastic ☑ Aluminum ☐ Copper ☐ Below Ground Discharge
☐ Above Ground Discharge

Fascia/Soffit

☐ Moisture Staining evident - Monitor ☐ Aluminum/Vinyl ☑ Wood

Covering

☐ Concrete/Clay Tile ☐ Wood Shingle/Wood Shake ☑ Asphalt/Composite Shingle
☐ Metal ☐ Other ☑ Flat Roof Membrane ☐ Tar & Grav
Estimated # of Layers 1

Life Expectancy

☐ Typical ☐ Middle ☐ End ☐ Exceeded ☑ Middle/end

Accessory

☑ Vent Stack ☐ Solar Panels ☑ Skylight(s) ☑ Vent Caps

Flashing

☐ Not Checked/Concealed ☑ Chimney ☐ Drip Edge ☐ Flat Roof ☑ Skylight
☐ Roof to Wall ☐ Stack ☐ Valley ☑ Roll Roofing ☐ Replace When Re-roofing
☑ Aluminum/Galvanized ☐ Tarring/Concealed

Chimney/Vent

☐ Wood ☐ Metal ☐ Furnace/Water Heater ☐ Fireplace
☑ Brick/Block/Stone ☐ Stone ☐ Corrosion

Repair mortar deterioration to prevent water entry and related damages.

Visible Flue Liner

☐ Clay ☑ Metal ☐ Block ☐ Rain Cap/Screen Covered

Sec. Roof Life Expectancy

☐ Typical ☑ Middle ☐ End ☐ Exceeded

Torched down membrane over flat roof is in good condition. Remove debris to prolong life. Seller advises it is approximately 8 years old. Typical life expectancy is 10 years. Inspect on an annual basis to maintain performance.

Attic

Limitations

- [x] No Access/Sealed
- [ ] Insulated
- [ ] Stored Items
- [ ] Looked In/Insp from opening
- [ ] Entered
- [ ] Hatch
- [ ] Pull Down

Electrical Service

Service Entrance

☐ No Conduit ☐ Overhead ☐ Underground ☑ 120/240V

Entrance Cable

☑ Concealed ☐ Aluminum ☐ Copper

Main Disconnect

☐ Switch/Cartridge Fuse ☑ Breaker

Service Size

☐ Have Electrician Evaluate
Amps 100

100 amp service.

Distribution Panel

☑ Not Opened ☐ Non Standard Installation ☑ Obstructed
Location 1st floor west wall

Panel Rating

☑ Room For Expansion
Amps 125

Fuse

☑ Breaker ☐ GFCI Breaker ☐ AFCI Breaker ☐ Over-Fused ☐ Cartridge ☐ Glass

Circuit Wires/Receptacles

☐ Aluminum ☐ Copper ☑ Representative # of Outlets Inspected/Tested ☐ Switched Outlets

Install GFCI receptacles on the exterior and kitchen to promote safety.

Terminate exposed wires inside a junction box or remove to prevent hazards from exposed wire.

Grounding

☐ Concealed ☐ Ground Rod ☑ Water Main

Bonding

☑ Concealed ☐ Water Pipe ☐ Gas Pipe ☐ Meter By-Pass

Provide bonding to water and gas lines to promote ground system continuity. Concealed at time of inspection.

Heating

Data Plate

☐ Not Legible ☐ Incomplete

Model: Goodman BTU Input: 69000 Estimated Age: 11 years

Limitations

☐ System Operating In AC Mode ☐ System Shut Down/Not Tested

Thermostat/Humidistat — Operational

☐ Unsecured ☑ Programmable ☐ Standard

Heat Type

☐ Convector - Wall Unit ☑ Forced Air ☐ Radiator/Baseboard
☐ Radiant - In-Floor

Burner Type

☐ Conventional ☐ Mid Efficiency ☑ High Efficiency

Heating Fuel Source

☑ Gas ☐ Electric ☐ Propane

Fuel Source Shut Off Location

☑ Beside

Heating System — Operational

☐ Advise Service/Repair Contract ☐ Verify Service Hist w/Selle

High efficiency furnace is 11 years old and functioning as intended. Typical life expectancy is 20 years.

Fresh Air Supply

☐ Internal ☑ External

Venting

☐ Metal ☐ Corrosion ☑ Sidewall/Plastic ☐ Flue

Life Expectancy

☐ Typical ☑ Middle ☐ Exceeded ☐ Middle/End

Gas Burner — Operational

☐ Not Checked

Ignition

☑ Electronic ☐ Pilot & Thermocoupl

Heat Shield

☐ Missing ☐ Corrosion ☐ Soot ☐ None

Heating

Burn Chamber

☐ Advise Adjustment ☐ Soot

Motor/Blower

Operational

☑ Direct Drive ☐ Noisy ☐ Other

Filter

☑ Disposable ☐ Missing ☐ Inoperable ☐ Undersized ☐ Damaged

Duct/Joint/Housing

☐ Unsecured ☐ Corrosion

Plumbing Components

Public Supply

☐ Concealed ☐ Lead ☐ Galvanized ☐ Plastic ☑ Copper ☑ Metered
☐ Not Metered

Shut Off Location: Kitchen south wall

Public Shut-Off Valve

☑ Not Tested ☐ Corrosion ☐ Tagged/Labeled for Convenience

Water Pressure

☐ Low ☑ Typical ☐ High

Water Quality

☐ Discoloration ☐ Debris ☐ Odor ☐ Advise Well Water Quality Tes ☑ Typical

Distribution Piping

☐ Concealed ☐ Plastic ☐ Galvanized ☑ Copper

Cross Connection

☐ Kitchen ☐ Laundry ☐ Hose Bibb ☑ None Visible

Waste Drainage

☐ Concealed ☐ Cast Iron ☑ Plastic ☐ Copper ☐ Pump/Inspect Septic System

Sewer lines in old homes such as this are prone to tree root damage, low spots, fractures, or collapse due to deterioration over time. If line has not been replaced in modern time, it may well need to be in the near future. The best way to determine condition of the drain line requires camera/scope evaluation by a drain professional.

Floor Drain

☐ None - a potential concern ☐ Drain Appeared Functional During Test

Concealed at time of inspection.

Main Cleanout

☑ Concealed

Hot Water Tank — Operational

☑ With Heating System ☑ Gas ☐ Electric ☐ Some Corrosion Noted - Typical

Age 13 years

Tank less hot water on demand system is 13 years old and functioning as intended. See info series sheet fore more information.

Life Expectancy

☑ Typical ☐ Exceeded ☐ Middle ☐ Middle/End

Plumbing Components

Fuel Shut-Off

☐ Concealed

Location beside

Relief Valve

☐ No Test Lever ☐ Corrosion ☐ Other

Discharge Tube

☐ Undersized ☐ Discharge

Venting

☐ Flue ☑ Sidewall ☐ Improper Rise ☐ Unsecured ☐ Corrosion ☐ Soot

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All Baths

Location
☐ Basement ☐ 1st Floor ☑ 2nd Floor ☐ 3rd Floor

Water Flow
☑ Normal ☐ Suspect ☐ Low

Floor
☐ Worn ☐ Minor Cracking - Typica ☐ Stains/Minor Damage

Wall
☐ Uneven ☐ Patched - Typical ☐ Ceramic

Ceiling
☐ Uneven ☐ Minor Patching - Typical ☐ Minor Cracking - Typica

Window **Operational**
☐ Binds - Adjust/Repair ☐ Not Tested ☐ Treat Wood To Preserve/Protect ☑ Thermal Pane
☐ Single Pane ☐ Storm Windows ☑ Representative # Inspected/Tested

Door **Operational**
☐ Binds - Adjust/Repair ☐ Damaged ☑ Representative # Inspected/Tested

Lighting **Operational**
☐ None ☐ Unsecured

Exhaust Fan **Operational**
☐ Advise Installation ☐ Dirty - Clean for best function ☐ Noisy - Service/Repair/Replace

Sink
☐ Worn ☐ Chip/Scratch ☑ Solid/Granite

Faucet **Operational**
☐ No Shut-off ☐ Unsecured ☐ Corrosion ☐ Minor Leakage at Handle - Repair

Trap/Drain
☐ Drain stop disconnected/inoperable-Repair ☐ Slow Drain - Clean/Repair ☐ Corrosion - Monitor for leaks

Vanity
☐ Worn/Scratches ☐ Missing/Loose Hardware ☐ Prior Stains-No Leakage Now

Toilet **Operational**
☐ No Shut-Off ☐ Unsecured ☐ Crooked - Monitor for leakage

All Baths

Tub/Enclosure

☐ Ceramic/Tile ☐ Solid Surface/Marble ☐ Fiberglass ☑ Plastic Panels
☐ Minor Mildew Stains-Treat/Clean ☐ Worn - Scratches/Chips

Tub Faucet/Mixer — Operational

☐ Not Tested ☐ Unsecured ☐ Leaky-Secure/Repair/Replace

Shower Head — Operational

☐ Not Tested ☐ Unsecured ☐ Leaky-Secure/Repair/Replace

Heat Source

☐ None ☐ Thermostat ☐ Electric ☑ Air Register ☐ Radiant
☐ Radiator/Convector

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Kitchen

Floor

☐ Worn ☐ Minor Cracking - Typica ☐ Stains/Minor Damage

Wall

☐ Uneven ☐ Patched ☐ Minor Cracking - Typica

Ceiling

☐ Uneven ☐ Patched- Typical ☐ Minor Cracking - Typica

Patio Door **Operational**

☐ Binds - Adjust/Repair ☑ Sliding ☐ Hinged ☑ Dead Bolt
☐ Minor Damage/Wear ☐ Weather Stripping

Lighting **Operational**

☐ None ☐ Unsecured ☑ Representative # Inspected/Tested

Sink

☐ Worn ☐ Chip/Scratch

Faucet **Operational**

☐ No Shut-Off Valve ☐ Unsecured ☐ Corrosion ☐ Minor Leakage at Handle - Repair

Trap/Drain

☐ Slow Drain - Clean/Repair ☐ Corrosion - Monitor for Leakage

Counter

☐ Unsecured ☑ Caulk at Backsplash ☐ Minor Damage/Scratches/Worn

Cabinet

☐ Worn/Scratches ☐ Missing/Loose Hardware ☑ Representative # Inspected/Tested

Range Hood **Operational**

☑ Cooktop Exhaust ☐ No Exhaust ☐ No Light ☐ Noisy

Exhaust vent

☐ Unsecured ☐ Ductless ☑ Concealed ☐ To Exterior

Filter

☐ Missing - Install for safety ☐ Unsecured ☐ Damaged ☐ Greasy

Major Appliances (Built-in)

☑ Tested ON/OFF only. ☑ Did not Test All Functions/Cycles

All appliances were turned on using regular operating controls if they are connected or not shut down. All

functions and different systems are not tested. The test simply comprises turning the appliances on to verify some basic functionality.

Stove/Cooktop **Operational**

Brand Frigidaire # VF55216640

Refrigerator **Operational**

Brand Frigidaire # BA32131095

Heat Source

☐ None ☐ Thermostat ☐ Electric ☑ Air Register ☐ Radiant
☐ Radiator/Convector

Interior Living Spaces

Floor
☐ Worn ☐ Minor Cracking - Typica ☐ Staining/Minor Damage

Wall
☐ Uneven ☐ Patched - Typical ☐ Minor Cracking - Typica
☑ Wood Frame w/drywall/plaster

Ceiling
☐ Uneven ☐ Patched - Typical ☐ Minor Cracking - Typica
☑ Wood Frame w/drywall/plaster

Monitor previous staining to ensure leak remains inactive. Dry at time of inspection.

Window — Operational
☐ Binds - Adjust/Repair ☐ Not Tested ☐ Fixed Pane ☐ Single Pane ☑ Thermal Pane
☐ Treat Wood To Preserve/Protect ☑ Representative # Inspected/Tested

Lighting — Operational
☐ None ☐ Unsecured ☑ Representative # Inspected/Tested

Ceiling Fan — Operational
☐ None ☐ Unsecured

Interior Doors — Operational
☐ Binds - Adjust/Repair ☐ Hinged ☐ Closet door off track
☐ Floor guides missing ☑ Representative # Inspected/Tested

Stairway
☑ Carpet ☐ Wood ☐ Worn ☐ Squeaks - Typical

Railing
☐ Wood/Metal ☐ Incomplete ☑ None

Install handrail to promote safety

Exterior Doors — Operational
☐ Binds - Adjust/Repair ☐ Weather Stripping Missing/Improper ☑ Dead Bolt
☐ Minor Damage - Dent/Split/Worn ☐ Sliding ☑ Hinged

Heat Source
☑ Air Register ☐ Electric ☐ Radiator/Convector ☐ None
☐ Radiant-Concealed

Additional Comments

General Comments

This is a Prelisting Inspection performed for the seller of the home in preparation for putting the home on the market for sale. This inspection is completed to ASHI and OAHI standards, is visual in nature, and does not address building code compliance issues which are the purview of municipal building inspectors.

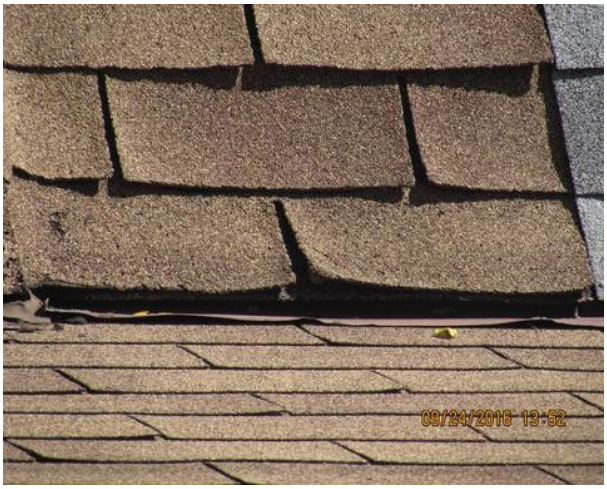
Property and Site

Front Porch Rail

Missing handrail

Roof Structure

Main Roof



Worn shingles used as siding

Deteriorated shingles over dormer

Roof Structure

Chimney/Vent

Deteriorated mortar

Sec. Roof Life Expectancy

Debris on flat roof

Electrical Service

Circuit Wires/Receptacles

Exposed wires

Heating

Heating System

High efficiency furnace

Plumbing Components

Public Supply

Water meter and main shut off

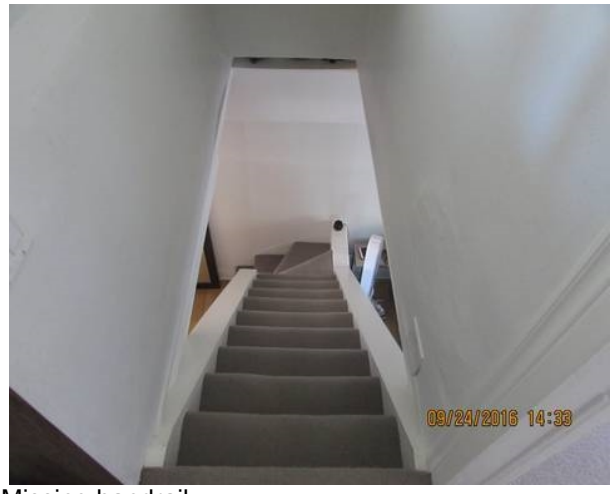
Interior Living Spaces

Ceiling

Water stains

Interior Living Spaces

Railing



Missing handrail

Ground Fault Circuit Interrupter

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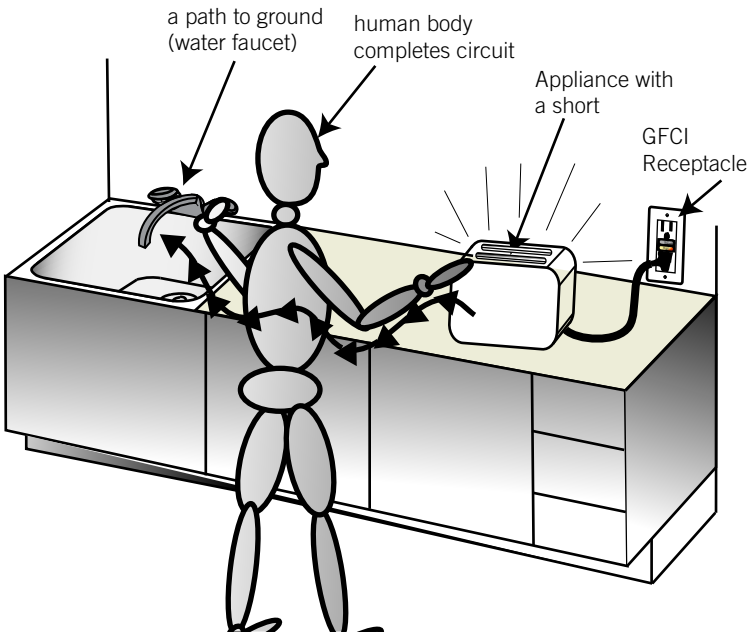
A ground fault circuit interrupter, or GFCI, is an inexpensive electrical safety device that can protect you and your family members from a serious electric shock.



Have you ever had an electric shock? While it is an unpleasant experience, it is not usually fatal. However, given the right conditions, the same shock could be fatal! If your body makes a solid connection to the ground, the shock could easily kill you. Here are two examples of a solid ground connection:

- If you are physically standing or touching the ground outside
- If you touch something conductive, such as any part of the plumbing system in your house, that is also touching the ground outside

In other words, if you decide to operate your hedge trimmer in your bare feet and you get a shock, you may not survive it.

How Can a GFCI Help?

A GFCI is a special electrical outlet that prevents electric shocks in situations such as the ones described above. The GFCI monitors the electrical current leaving from and returning to the outlet. The current leaving the outlet should be the same amount as the returning current. If the current returning is less than that which leaves, the missing current could be passing through somebody's body to the ground. The GFCI detects the mismatch and shuts off the electrical outlet in a split second.

Where Should GFCI Outlets Be Located?

GFCI outlets should be installed in any area that presents a risk of an electric shock withg a direct path to the ground. In other words, anywhere you might directly touch the ground outside or anywhere where you might touch a part of the plumbing system. Some smart GFCIs locations are:

- Exterior outlets
- Kitchen counter outlets (not common in Canada)
- Bathroom outlets
- Garage outlets
- Outlets in unfinished basements

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This is not a complete list. Areas near swimming pools, hot tubs, and so on should also include this type of outlet.

GFCIs are not perfect, however, and have been known to "nuisance trip" when connected to certain types of electrical equipment. For this reason, exceptions to the suggested (or required) locations for GFCIs exist. For example, a regular outlet would be a better choice for a freezer in your garage since the potential for nuisance tripping of the GCFI is high and might go undetected for days, leading to spoiled food in the shut-off freezer.

Remote GFCI

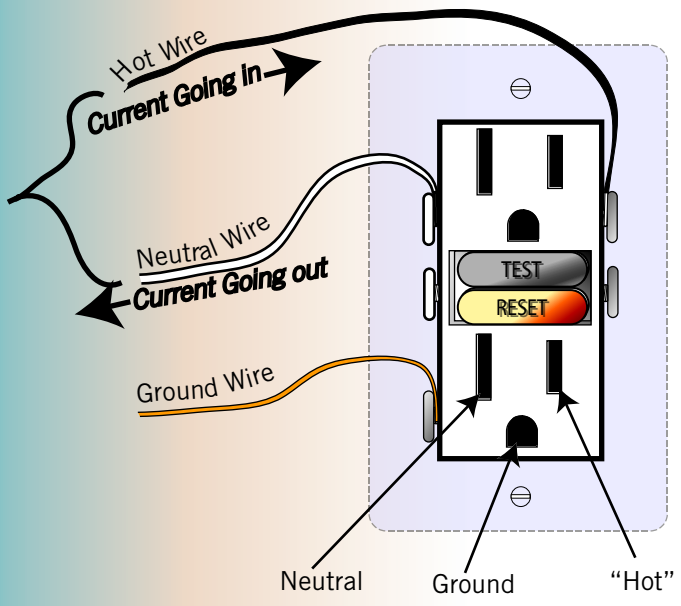
Several electrical outlets usually connect to a single circuit in an average home. A single GFCI outlet will protect all of the outlets in the circuit, even if the other outlets are not GFCIs. But the GFCI outlet must be the first outlet in the string in order for it to properly protect the other outlets, and, of course the connections have to be properly made.

Remote GFCIs sometimes cause confusion for home owners in the following ways:

- A home owner thinks the bathroom does not have a GFCI because the outlet looks like a standard one. The standard outlet under the protection of a remote GFCI should have a sticker indicating its GFCI protection. The problem is, the sticker does not stick forever. A Pillar To Post® inspector can test this for you.
- A standard outlet that does not appear to work in a bathroom or kitchen may actually be attached to a remote GFCI outlet that has nuisance tripped. Before calling an electrician, check the GFCI outlets in other bathrooms and in other locations around the house.

Testing

GFCIs are easy to test and should be tested every month. Simply press the test button on the outlet. You should hear a pop as the reset button pops out a little. To reset, just press the reset button. If the GFCI fails to trip, or if you are unable to reset it, it is time for an electrician to replace it.



Special breakers also provide GFCI protection to the entire circuit. These breakers can be installed instead of GFCI outlets. The GFCI breaker should also be tested monthly. You will recognize this breaker from the test and reset button.

GFCIs can help prevent injury and death from electric shock. It is a small device worth having to ensure the safety of your family members.

Railings and Guards

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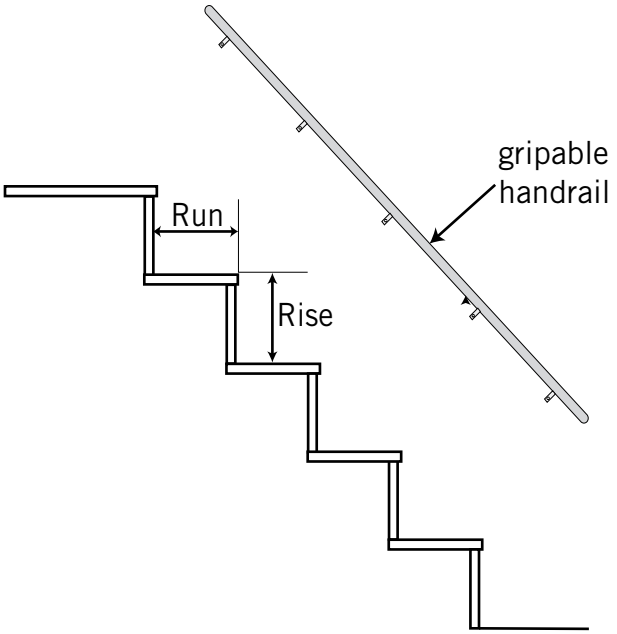
The CDC (Centers for Disease Control and Injury Prevention) estimates that 40% of all unintentional deaths around the home are due to falls. One in five injuries that require a visit to an emergency room is due to a fall. Over 50% of these are falls that happen at home and most of these are falls from stairs and steps.



Railings and guards are designed to keep people from falling and injuring themselves. There is no doubt that properly installed railings and guards could help to improve these statistics.

A railing is something to grip onto when you go up and down a staircase. A guard is something that keeps you from falling off a staircase, deck or balcony. On a staircase, sometimes the railing doubles as a guard.

Many homes have missing or inappropriate railings and guards. One reason is that older homes did not have the same requirements as we do today. Home owners are not required to upgrade their homes to modern safety standards. If we had to upgrade, everybody would have to renovate their home every year just to keep up.

Pillar To Post home inspectors inspect your home with this in mind. We don't believe people should have to renovate their homes every year. Your railings and guards may be perfectly adequate for the time they were installed. At the same time we are concerned for your safety. We believe the solution is to provide you with information on common safety issues and let you decide if you would like to address the issue as a discretionary upgrade.

Here are a few common issues:
Missing railings: Sometimes a staircase has no railing at all, either because the previous owner removed it to make more room to move furniture up the stairs or because it was never installed in the first place. Ideally there should be a railing on any staircase that has more than two or three risers. The actual requirement depends on your area and when the home was built.

Missing guard: A common scenario is there is no guard on an open staircase to a

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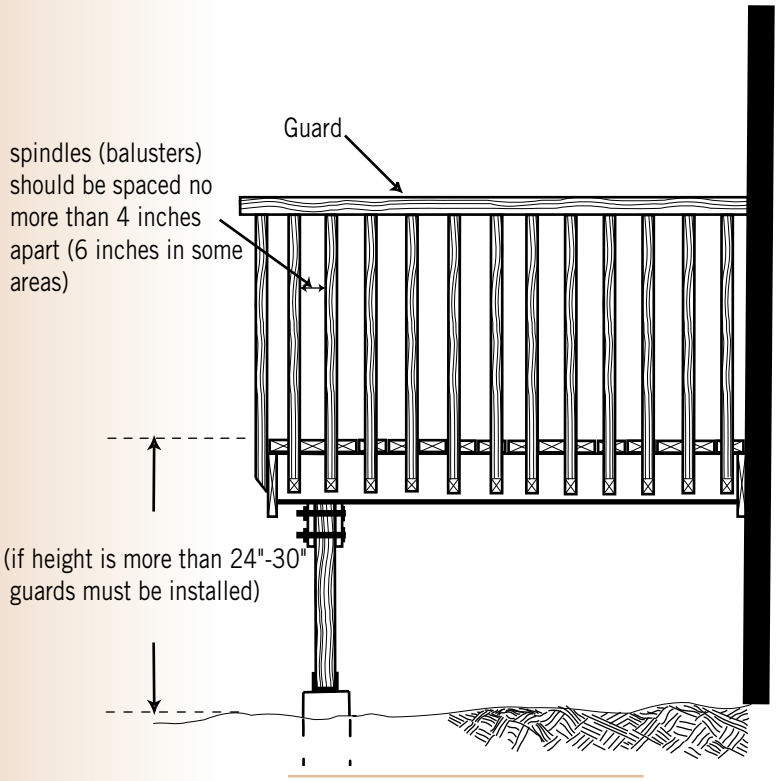
basement. In many areas, a guard was not required as long as there was a wall on one side and the basement unfinished. Today, many home owners have turned their basement into a recreation area or a playroom for children. The open staircase is now a danger. Ideally, a railing and guard should be added.

Guard too low: In some cases, an old home will have very low guards on staircases or balconies. This was the design at the time the home was built. Ideally, a guard should be 36 inches high, unless it's part of a staircase handrail in which case 34 inches would be ideal. In many areas, if the drop is six feet or more, a guard of 42 inches is required.

Railing or guard has large openings: Railings and guards may have vertical spindles (called balusters). These keep people from falling through. In some cases, the spacing between the spindles is so wide that a child could fall through. The requirements have changed over the years and also vary from area to area but most authorities believe that a maximum opening of four inches offers the best protection.

Other things to look for:

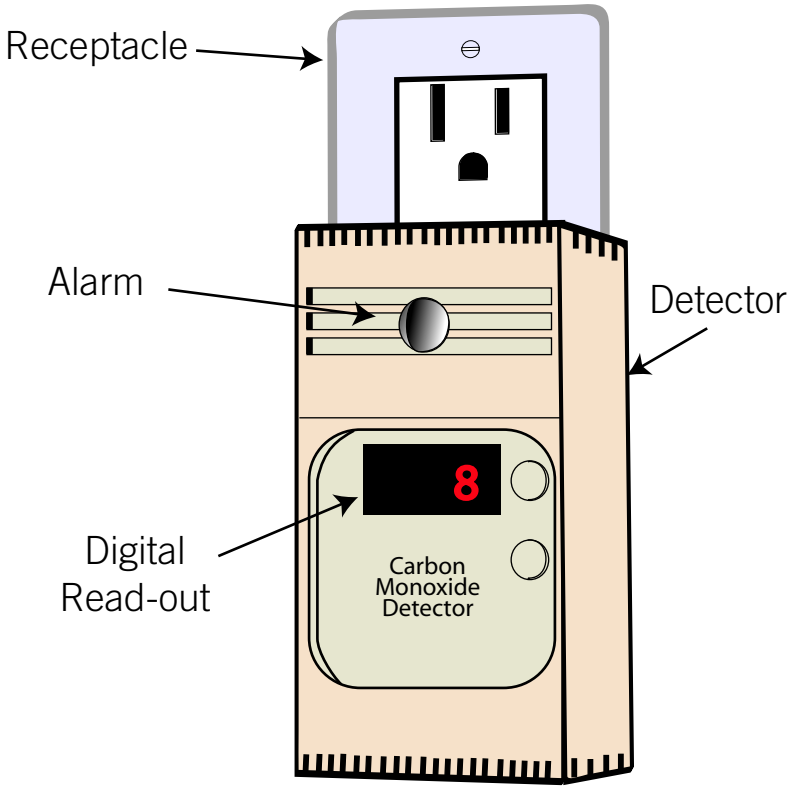
- Guards that incorporate climbable elements are not ideal. An example is a bench built into a guard or horizontal slats between the spindles on the guard. The concern is that children can climb them and fall over.
- Appropriate lighting for a staircase is a must. A dark stairwell is dangerous. That's all there is to it.
- Uneven stairs and stairs with non-uniform riser height are dangerous.



Carbon Monoxide

Pillar To Post®

Carbon monoxide, or CO, a byproduct of incomplete combustion of fossil fuels, is a colorless, odorless gas. Breathing CO reduces the blood's ability to carry oxygen. In severe cases, CO can cause death.



Defective or malfunctioning fossil fuel appliances, or inappropriate use of appliances that burn fossil fuel close to or inside the home can pose a serious health hazard. Here are a few examples of dangerous operations:

- Running an automobile or gas lawn mower inside the garage
- Operating a barbeque inside the home
- A gas or oil burning furnace with a blockage in the chimney
- Kerosene space heaters
- Operating a generator in the home during a power failure

Symptoms of Carbon Monoxide Poisoning

Symptoms of carbon monoxide poisoning include headache, dizziness, nausea, vomiting, weakness, chest pain, confusion, and loss of consciousness. Carbon monoxide poisoning can lead to death. Low level poisoning may go unnoticed because it may be mistaken for the flu.

Carbon Monoxide Detector

You should have at least one carbon monoxide detector in your home. In some geographic areas, a CO detector is required by law. The CO detector should be placed where you can hear it if it goes off when you are asleep. A CO detector does not have to be placed on the ceiling, since unlike smoke, CO has approximately the same weight as air so it mixes

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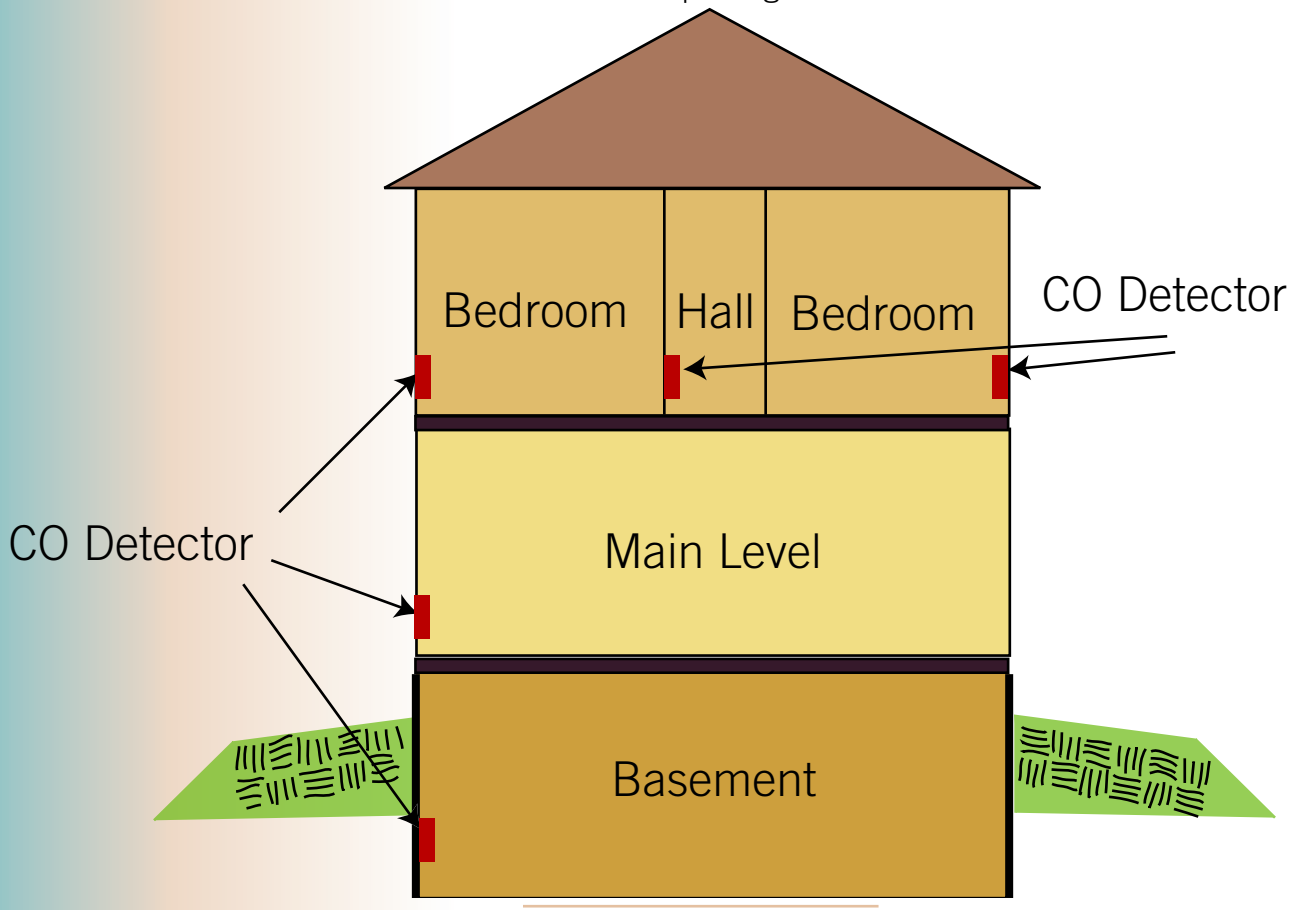
uniformly throughout the room rather than floating up to the ceiling. To avoid false alarms, do not install the detector next to heating and cooking appliances, vents, flues, or chimneys. Make sure you read and follow the operating, placement, and testing instructions that come with the detector.

If the carbon monoxide detector alarms, take it seriously.

Avoiding CO Poisoning

- Have your heating systems serviced every year by a qualified technician.
- Have your fireplace chimney cleaned and inspected every year.
- Install at least one CO detector in your home and replace the batteries twice per year.
- Open the garage door prior to starting your car; drive the car out promptly. Do not leave it idling in the garage. Do not use a remote car starter when the car is in the garage.
- Do not use a charcoal or propane barbeque in the home.

If you are installing only one carbon monoxide (CO) detector,
it should be located where you can hear it if it goes off when you are sleeping.
For greater safety, multiple CO detectors can be installed throughout the home.
Follow the instructions packaged with the detector.



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HOT WATER ON DEMAND

Imagine a touch-screen pad next to your tub. Enter a desired temperature and the tub fills with water at exactly that temperature. Imagine never running out of hot water again. Welcome to hot water on demand water heaters. There is more to hot water on demand water heaters than endless hot water. They save energy too.

The concept is not new. In fact, these systems have been around for over 40 years and are common where the cost of energy is high such as Europe and Japan.

How It Works

A standard hot water heater heats a large reservoir of water over a long period of time. When you need hot water, it's there waiting for you. Once you use it up, you have to wait if you want more. A hot water on demand system heats water as you need it using gas or electricity. When you turn on a hot water tap:

1. Cold water flows into the system triggering the flow sensor
2. Powerful burners ignite and heat the water as it flows through the heat exchanger
3. The water comes out at the required temperature.

There is no tank or reservoir of water to heat up. For this reason, a hot water on demand system is commonly called a "tankless water heater".

Tank Versus Tankless

When your hot water heater gets old should you replace it with another standard system or should you install a hot water on demand system?

There are three key benefits of a hot water on demand system:

- All the hot water you want.
- More energy efficient because there are no standby heat losses. Standard systems use energy to maintain the water temperature.
- A hot water on demand system is a small box mounted on the wall. Find some extra floor space by removing your old hot water tank.

The main down sides are:

- The up-front costs are much higher, including purchase price and installation costs.

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- It takes an experienced technician to select and install a system properly. There are lots of ways to go wrong with a hot water on demand system.
- If your power goes out, you don't get any hot water. With a tank system, at least you have a tank full of hot water.

Saving Energy

A hot water on demand system is energy efficient because there is no reservoir of water to keep hot. The ***operating efficiency*** is not a good measure when comparing a standard system and a tankless system because it does not account for the standby losses. A better point of comparison is the is the ***energy factor***. The energy factor is an estimate of the total energy cost for hot water. For example, the energy factor for a typical tank style hot water heater is about 0.55. This means that on average, for every dollar you spend on gas you get about 55 cents worth of hot water. A modern gas fired tankless system has an energy factor of about 0.84.

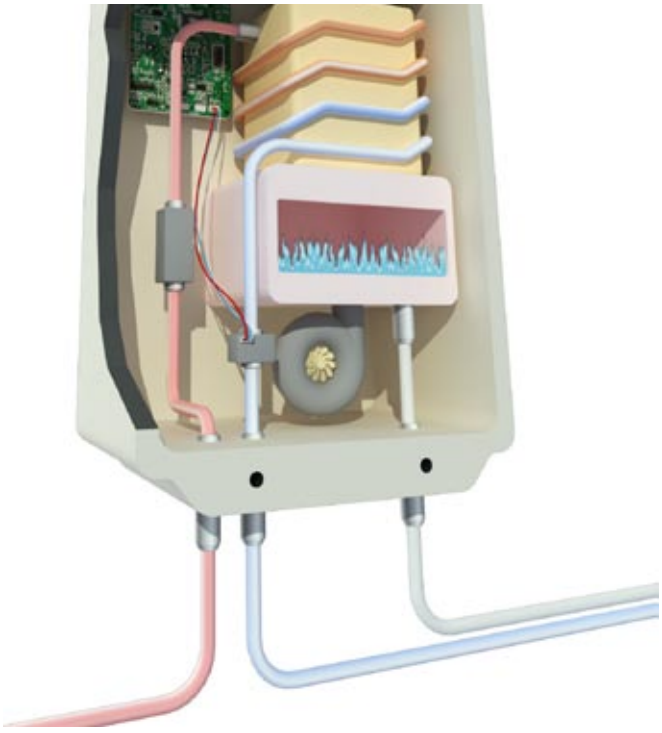
Saving Money

You can save energy with a hot water on demand system but can you save money? Is the higher up-front cost justified by the energy savings. Most product literature is misleading. A 20% energy saving is a realistic comparison of a modern tank system and a modern tankless system. Depending on your energy cost and the amount of hot water you use in a year, the payback may be 4 to 9 years. This is not bad when you consider that these systems last about 20 years compared to about 10 years for a standard tank hot water heater. If you are planning to live in your house for a while, you will eventually benefit from a lower life-cycle cost and from lower energy costs.

Skilled Technician

Thinking of installing a hot water on demand system? A skilled and experience technician is a must!

A hot water on demand system requires a powerful burner to heat the water as it flows past the flame. The burner has to be powerful enough to heat the water even if several hot water taps are running at the same time. A skilled technician will know how to size the unit to supply the needs of the home. Many less skilled installers get this wrong. You have to consider how cold the water is to start with. For example, consider two identical houses, one located in Florida and the other located in Ohio. The home in Ohio will need a much more powerful burner because the water entering the system may be only 45 degrees in the winter!



A skilled installer will be able to anticipate problems such as an inadequate gas line. The burner in a tankless water heater is so powerful it needs a large gas flow rate to feed it. If the existing gas line is not large enough, a new line will have to be installed.