

Roofing, Flashings and Chimneys

Description

Sloped roof covering Asphalt shingles Metal Wood Single ply Roll roofing Modified Bitumen
 Metal ice shield Concrete/clay Heating cables

Flat roof covering Tar & gravel Roll roofing Single ply Modified Bitumen _____

Chimney Metal Wood framing over metal Masonry Stucco Masonry blocks Removed None

Flue liner Metal Clay Brick Asbestos Not visible Other _____

Skylights Manufactured Built Onsite Wood Metal

Flashings Metal Tar None Other _____

Roof Drainage System Galvanized Aluminum None Other _____

Limitations

Roof inspection by Binoculars Ladder at eaves Walking on From ground

Roof inspection limited/prevented by Snow/ice Wet No access Height Slope Metal Trees
 Covered by deck/solar/PV panels Flat roof covered by gravel Frozen/hot/damaged shingles

Chimney inspection limited/prevented by Snow/ice No access to roof/chimney (see above)

Cap not visible Height ✱ Interior of flue liners not inspected

Recommendations and Notes

Sloped roof coverings

Old Damaged Rust Cracked/curled Missing Rot Loose Leaks Evidence of ice damming
 Vulnerable to ice damming/leak potential Trim trees/vines away from roof
 Ice & water shield recommended when repairing/re-roofing Percentage of roof cover not visible _____ %

Expect to renew roof covering/shingles within _____ Interim repairs required

Flat roof coverings

Old Damaged Rust Ponding Loose or damaged seams Poor gravel cover Exposed tar Blisters
 Poor or blocked drains Trim trees/vines away from roof Leaks Leak potential
 Percentage of roof cover not visible _____ %

Expect to renew flat roof covering within _____ Interim repairs required

Chimney(s)

Spalling Pointing loose/missing Cap damaged/cracked/crumbling Check cap/flue pipe seal annually
 Clogged Loose or damaged liner Re-build Too low Leans Rust Cracked/damaged
 Dual pipes discharge too close together (risk of cross contamination) Poor seal at building wall

Flashings (roof)

Non standard Leak Loose Damaged Improper installation Rust Seal Suspect
 Leak potential Not visible (check in Spring) Replace when re-roofing Check all flashings annually

Flashings (chimney(s))

Non standard Leak Loose Damaged Improper installation Rust Seal Suspect
 Leak potential Not visible (check in Spring) Replace when re-roofing Check flashings annually

Roofing, Flashings and Chimneys (2)

Plumbing vent pipe(s)

- Too short Poor location Rusted/loose/damaged Missing Builder's test seal not removed Blocked

Skylights

- Flashings loose/damaged/leak Maintenance required Poor installation Poor quality unit Leaks
 Leak potential Thermo seal failure Check all flashings annually

Additional notes



Read this.....

We make every effort to examine roof materials closely, however there will always be times or circumstances that make it unsafe or impossible to climb onto roof areas.

This may be due to steep slopes, weather, poor access or snow. It will always be in the inspector's absolute discretion to judge any personal safety issues.

Roof, skylight and chimney flashings need regular maintenance to prevent leakage.

Lack of maintenance to roof components may also significantly reduce their expected life span. Read the maintenance section provided.

Where roof coverings or flashing areas need repair, there may be underlying, unseen, damage to sheathing or the roof structure.

Roofing, Flashings and Chimneys (3)

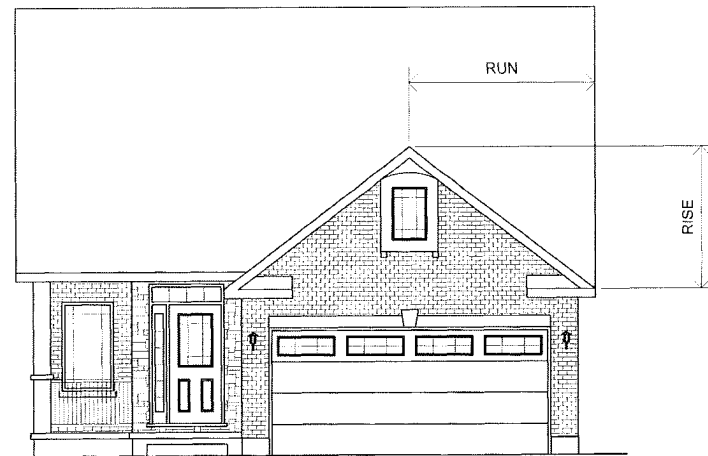
The basics.....

The roof protects the building from water, snow and sun.

Slope

The roof pitch is measured by considering how far it goes up (rise) against how far it spans horizontally measured from a plumb line through the centre of the ridge (run). Always use the factor of twelve feet as the run, so a roof that goes up six feet (over a distance of twelve feet) would be said to have a 6:12 slope.

Roofs with a rise/run ratio of 4:12 down to 2:12, are considered to be 'low slope' and need special shingles or other treatment. Roofs with a slope of 2:12 or less are considered to be flat.



Coverings

Asphalt shingles are the most common roof covering for sloped roofs, followed by metal roofing. Cedar, terra cotta, slate or concrete shingles are also available.

Flat roofs have a waterproof membrane, usually made of asphalt, tar, PVC or rubber. The gravel seen on many flat built-up roofs protects the tar, asphalt and provides ballast and protection from the sun's U.V. Rays. It has nothing to do with waterproofing.

Life expectancy

Asphalt shingles	15 - 20 years depending on the climate. Manufacturers' claims for 25 or 30 year shingles are not always substantiated in the real world.
Metal	25 - 50 years - but you may have to do some maintenance such as repairing seams or painting.
Wood shakes	30 - 50 years.
Wood shingles	15 - 20 years.
Concrete or clay tiles	50 - 100 years - but these are very heavy and need additional support for the roof structure.
Flat roof	10 - 15 years

Roofing, Flashings and Chimneys (4)

Ice damming

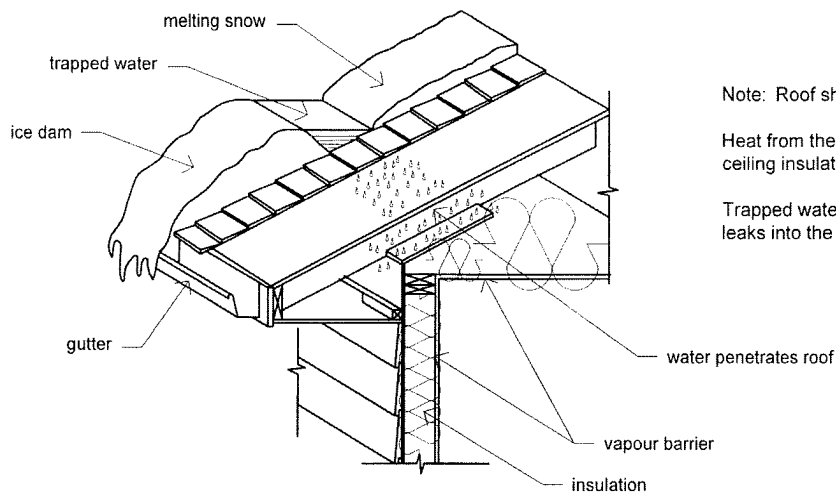
Ice dams are caused when inadequate attic insulation or major air leakage allows heat from inside the building envelope to escape through the roof and cause snow to melt on the roof. The water runs down the roof until it meets the colder overhang, where it freezes.

Subsequent melting water, trapped behind the dam, builds up until it seeps under the shingles and penetrates the roof. There is a good likelihood that leakage will result.

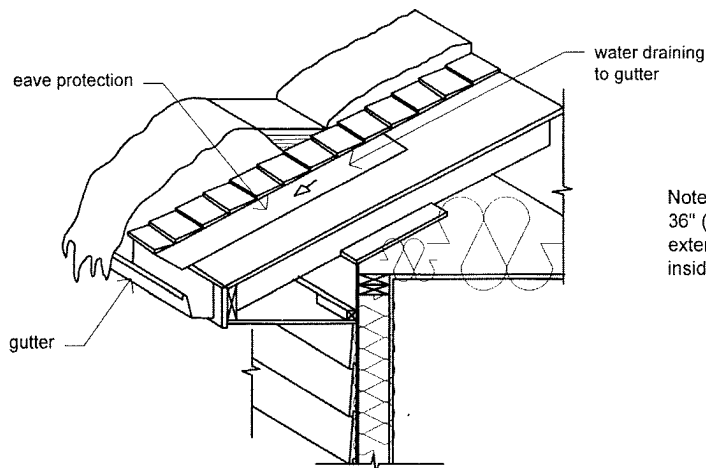
Installing tar paper and/or ice and water shield over the eave area when repairing or re-roofing, generally prevents moisture penetrating the attic spaces. To resolve the problem on a more permanent basis, improve attic insulation and ventilation, especially at the eaves.

In extreme cases - heating cables are a temporary fix.

Do not walk on roof shingles during the winter months in very cold climates. Some residential roofs can be damaged by snow loads and by walking on the shingles when they're frozen will cause significant damage, which will not be visible until spring.



Without Eave Protection



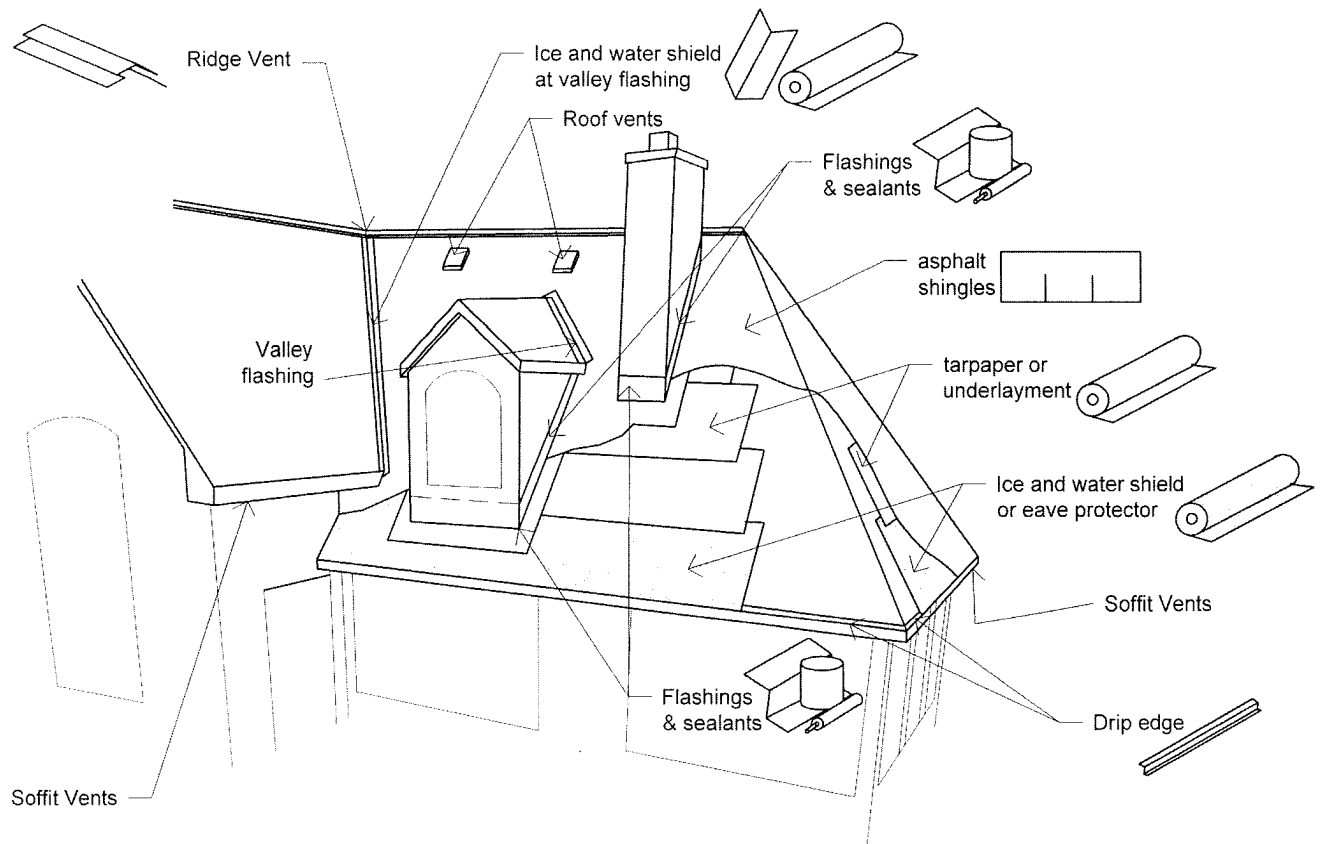
With Eave Protection

Roofing, Flashings and Chimneys (5)

Flashings

Flashings are the materials that are used where necessary to prevent the entry of water through joints between materials. Flashings can be a source of water penetration and must be checked and maintained annually. Rusted metal must be painted to slow the deterioration process.

Flashing should be used at the junction of roofs, walls, chimneys, over window and door openings, in roof valleys and in other critical areas.



Chimneys and flue pipes

Chimneys and flue pipes are used to discharge the gases that are produced when we burn fossil fuels (gas, oil, wood and so on) to heat our homes or heat water.

Chimneys are designed to withstand significant temperatures, (above 1,200 degrees Celsius during a chimney fire) and the constant heating and cooling associated with thermostat controlled devices.

It's essential therefore that all chimneys and flue pipes are examined and maintained **annually**. This may only mean having a certified chimney sweep come once a year. We recommend that all chimneys are cleaned and examined as soon as you move into your new home and before you use any wood burning appliance.

Roofing, Flashings and Chimneys (6)

Liners

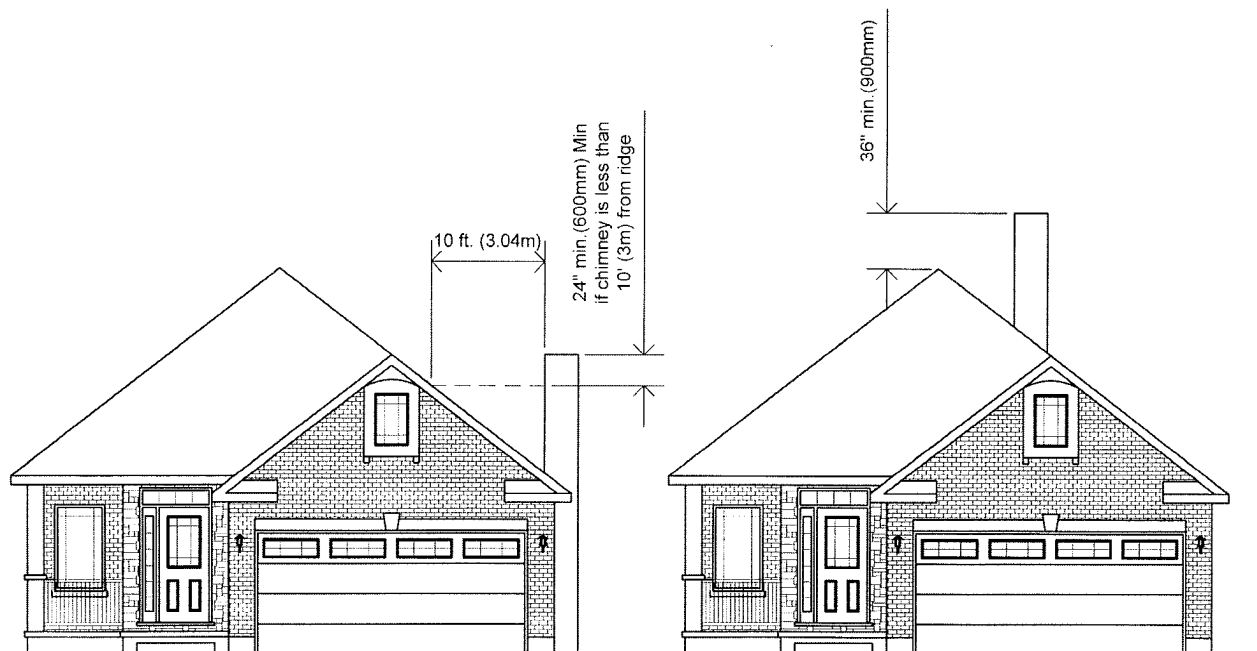
Flue liners are the metal, cement, terra cotta or clay pipes, used to protect the exterior part of the chimney and the interior of the house from fire, heat and acids.

Damaged flue liners are a potential fire hazard. Any damage, rust or other deterioration must be repaired or the unit(s) replaced immediately.

Many oil burning devices do not have stainless steel flue liners. Many jurisdictions now require this feature. If your home happens to be in that geographical area, you may find that your oil supplier will refuse to supply oil until the liner is installed. Your home inspector will have knowledge of the local requirements.

Flue pipes must be kept clear of roof materials to prevent fire. The chimney flue should be high enough above the roof to avoid downdrafts.

This is a guide to recommended clearances.



Trees and vines

In some areas, it's popular to allow vines or other foliage to grow over and around the exterior of chimneys and flue pipes. In most cases where the vines grow near the top of the chimney, they present a significant fire hazard and can cause blockage or deterioration. Vines should be cut back to clear the top by at least three feet.

Never grow vines on siding, stucco or over roof areas. The roots will penetrate the exterior, causing damage and creating a potential for leakage.

Trim trees that overhang roofs so as to create a six foot clearance. **Extreme caution is required in trimming near overhead electrical power lines.**