

Small Attic Big Vision

Attic is the space supported by the truss or roof structure between ceiling and roof. According to the design, it could be large enough to accommodate installing machinery for example the evaporator of AC or HRV and allowing people to walk in, or lower than 40" which can barely get into it. Nevertheless, they have the same function. First they are skeletons of the roof and ceiling; also provide the lateral brace to the wall. Second they facilitate to put on the insulation which keeps the finished space comfortable to stay and run the pipes and wires. Another important function is to ventilate air. This is a second protection after insulation, which keeps the living space underneath not affected by the exterior and is good to the roof material.



Figure 1



Figure 2



Figure 3

As a key step of house inspection, every house inspector will pay attention to attic. Normally there will be a ceiling hatch at least 20"x28" which can get access into attic from closet either at the bedroom or at hall way. We can get lots of information from here. Especially to the roofs we cannot climb on. This is the other place to observe leaking. If we found the water stain around roof penetration for example chimneys, roof vents, exhaust vents and sky lights, it could decide the roof leaking. Then repair is necessary. Of course, sometimes the water mark on the sheathing is not leaking. Ex. Figure 1, this is a local living space air leaking possibly a bathroom vent which caused the condensate. Therefore another part of inspection is that all the vents have to directly go to the exterior. The disconnected, leaking pipes leave the moisture condensate at attic, which is leading mold/mildew growing, the structure damage and invalidation of the insulation. It is not unusual in the house inspection. We have to take the chance to confirm the type and effectiveness of insulation and the existence of vapor barrier in place. The new building code is asking R40 insulation on roof. That means about 12" thickness of insulation which cannot be achieved on the old building ex. Figure 2 but we cannot say this is a defect. It may cost a little more on fuel during the winter in this building however people can always add more insulation anytime. The vapor barrier is in place to stop the warm air leaking into attic. No matter how delicate the work has been done there is always air leaking. At this stage, the ventilation is critical to dissipate leaking air and dry the moisture. It is the second protection of the roof. So the inspection of the soffit vents, the air deflection boards, gable and roof vents is necessary.

Moreover, we often find wiring in the attic. This helps us to verify the age of the building and any renovation has been done or not. Sometimes we can tell quality of the construction from here. Many chances we can find out if there were any visitors in the attic, for example squirrels, mice, ant even raccoons. Ex. Figure 3 is the rodents' dropping which is not unusual in lower mainland. Do not be surprised if anything is emerging when get into attic. Once a time we inspected a less than 10 years old house. There was excessive mold growing and messy insulation which appeared a grow-op house. Unfortunately, the owner & realtors did not know about it & no record on this. That was because the owner, who was so upset at this moment, did not do the home inspection when he bought this house. Although the deal did not go through, the client still appreciated our work.