

To avoid ice damming in the snow days

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We started feeling the cold and seeing the white stuff in the lower mainland 2 days ago. As the forecast reiterated this winter could see the biggest snow in the last 50 years. As long as everybody is expecting the white Christmas, we should mention to avoid ice damming on the roof. Simply speaking of the ice damming, which the snow got melted on the upper part of roof and drained to lower eave and gutter in which the water was frozen and formed a dam along the eave, was leading to roof leaking. Moreover, due to the temperature changed day and night, the pond water cycled with frost and thaw. This process could displace and damage the roof material as well. Therefore, it is important to be on guard of ice-damming.

Here some readers may ask why snow on the upper roof melted whereas that of the lower part in terms that they are exterior anyway. The reason is most part of the roof and attic on the living space, which is more or less affected by the room temperature. The insulation and ventilation may be not as ideal as we expected.

The room air could stay and condensate in the attic. But normally there is no insulation at eave. So it is understandable the ice damming at the eave especially the low pitched with large overhang roof. In addition, ice damming is not only at eave but also the joints between the finished and unfinished space, the change points of different roof slope, the point of roof and wall intersection.



At this moment, the writer brought up an inspection that is finished a couple of days ago. The roof has just been replaced and appeared in good condition. But the wall and roof flashing caused my attention. The wood siding is just on the asphalt shingle as figure showed. There is no cutting space as preferred minimum 2" on the flashing between the siding and the roof which is important to drain the water and stop moisture holding at the wall and roof intersection. If snow accumulated, the melted water might be hold here even wicked up behind the siding. Both leaking and frost/thaw damage are quite possible.

Then how can we prevent ice damming? First the effectiveness of the insulation is the key. If not enough, the owner should add more. Second the ventilation of the attic is necessary. Also, a piece of 30" wide eave protection could be installed under the shingle to avoid leaking. Certainly, this can only be done when replace the roof. In addition, the heating cable could be mounted along the eave to have the snow melted in time. But this is not really practical, because it has to be started before the snow fall otherwise the result might get worse.

Once the snow accumulated, I suggested physically cleaning if possible. Not only for draining the water but for reducing accumulation of the snow which could be heave enough to damage the roof structure. Please be careful of the safety. This is not an easy job in the slippery wet snow day.