

What's the Risk?

Cutting or Altering a Roof Truss



THE ISSUE

Roof trusses are common in most new houses in Canada. Trusses are building components that add strength to roofs. They also provide support to house structures, allowing for large spaces inside that do not require walls. There are numerous kinds of roof trusses, making it possible for engineers to design complex roof designs and structures which add character and uniqueness to our homes. Engineers will factor in the snow, wind and rain loads a truss requires to meet the building code. In addition, they will calculate the dead load for the roof which includes the weight of the sheathing and the roof covering. Cutting a truss is a common DIY issue many insurance loss prevention staff come across as they complete their risk assessments of houses.



WHAT'S THE RISK?

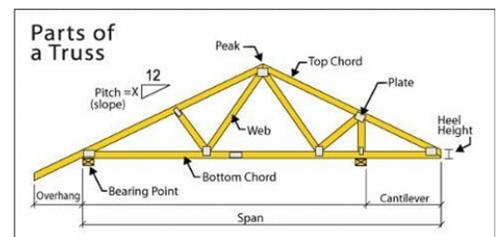
The problem with cutting a truss is that the truss is part of the structural element of the roof system and altering one could lead to a catastrophic failure. The number one rule with trusses is that a homeowner should **NEVER CUT ANY PART OF A TRUSS**. Any field modification of a truss that requires drilling, cutting or relocation of a truss component should not be done without the approval of the truss manufacturer or a licensed truss design engineer. In Ontario (and most other provinces), the building code states, "Roof truss members shall not be notched, drilled or otherwise weakened unless such notching or drilling is allowed for in the design of the truss." (OBC 9.23.5.5. Roof Trusses)



WHAT CAN BE DONE?

If modifications are required, adhere to the following:

- Contact the engineer or truss company that designed the truss to determine how to safely make modifications and if they can be done at all.
- Acquire a building permit and qualified contractor for the installation of skylights or creating an attic storage area.
- Contact an engineer before adding photovoltaic (solar) panels to a roof to determine if the roof and truss system can support the new weight loads.



Source: FHB.com

