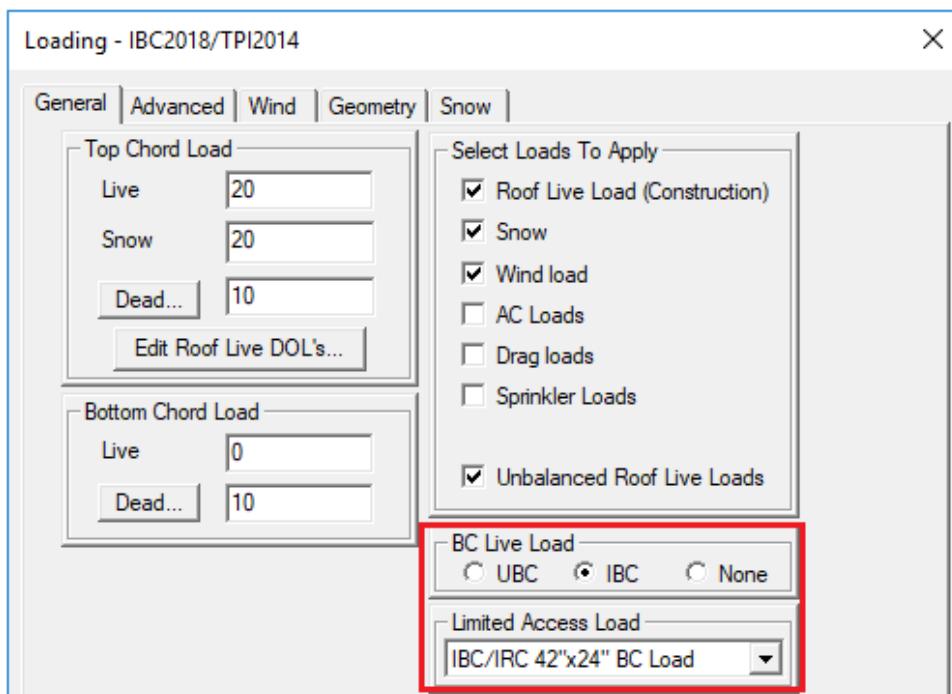


Often times, what the building code states is confusing at best. This is especially true when there are multiple footnotes describing when and where a load is to be applied. One such circumstance occurs with the attic limited access storage load.

Both the IRC and IBC require a non-concurrent 10 psf bottom chord live load for attic areas without storage (IBC BC Live Load). Non-concurrent means that the bottom chord live load is applied in a separate load case without the top chord or any other live loads. Both of these codes also have a 20 psf live load for attic areas with limited storage, commonly referred to as the “42 inch live load”, or “the BOCA load”, or “IBC/IRC 42"x24" BC Load”. This load is applied concurrently with the top chord or any other live loads.

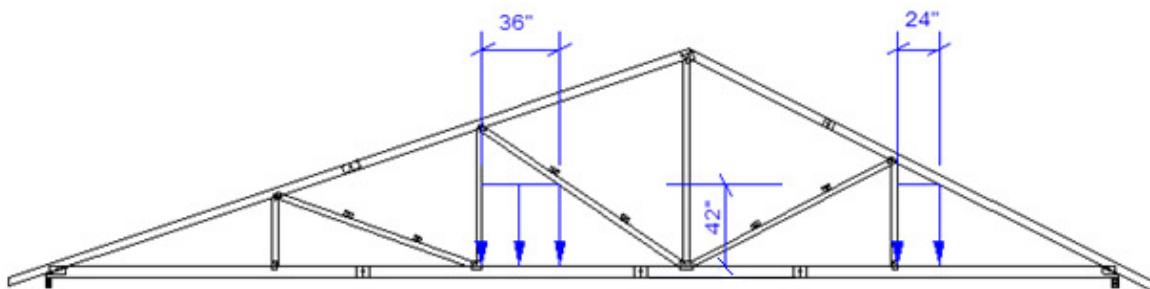


General Loading Tab in MiTek 20/20 Engineering

Loading Advanced - Limited Access Loads	
Limited Access Load	IBC/IRC 42"x24" BC Load
Follow Building Code	Yes
Limited Access Load	20.0 lb/ft ²
Minimum Height	3-06-00
Minimum Width	2-00-00
Apply to Entire Panel	No
Loading Advanced - Stabilizer(tm) Installation Load Case	
Additional Bottom Chord Live Load Considerations	
Bottom Chord Live Load	IBC
Follow Building Code	Yes
Load	10.0 lb/ft ²

Building Code Settings in Structure with Truss Design

Below is a quick summary of what the IRC states regarding a 20 psf live load for attic areas with limited storage: Attics with limited access shall be designed to support 20 psf live load on the bottom chord of any truss "...with a web configuration capable of containing a rectangle 42 inches high or greater by 2 feet wide or greater...".



This applies to areas that are accessible via a pull-down stairway or framed opening with a bottom chord pitch of less than 2/12, or an opening of 20 inches by 30 inches where there is at least 30 inches of clearance above the opening.

When the limited access load is applicable, it is important to remember the exemptions to this loading requirement. The limited access load is not required when:

- The attic area is not accessible through a scuttle as described above.
- The 42 inch tall by 24 inch wide rectangle beneath the webbing does not align with adjacent web openings (less than 3 consecutive trusses with same open area).
- The bottom chord pitch is greater than 2/12
- The insulation depth is greater than the depth of the bottom chord.

The insulation exception may make it rare that the 42"x24" load is required on IRC designs. Given that energy codes require the use of insulation over livable spaces, it is likely that the 42 inch limited access live load will only be applicable to trusses over a non-insulated garage. Please also note that there is no "insulation exemption" in IBC. Of course, it is important to remember to check with local codes as many jurisdictions modify the requirements of this load.

Both 2018 IBC and 2018 IRC codes now require that you have a minimum 10 psf concurrent bottom chord live load in the remaining portions of the bottom chord where the 20 psf live load is not applied. This is taken care of by the MiTek program when this load is applied. Note that IBC 2018 does not have an insulation depth exemption.

If you have any questions regarding the applicability of the attic limited access storage load, please contact the MiTek Engineering department.