



# Lateral Bracing



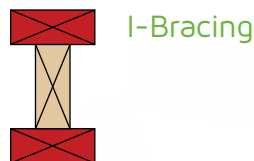
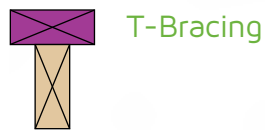
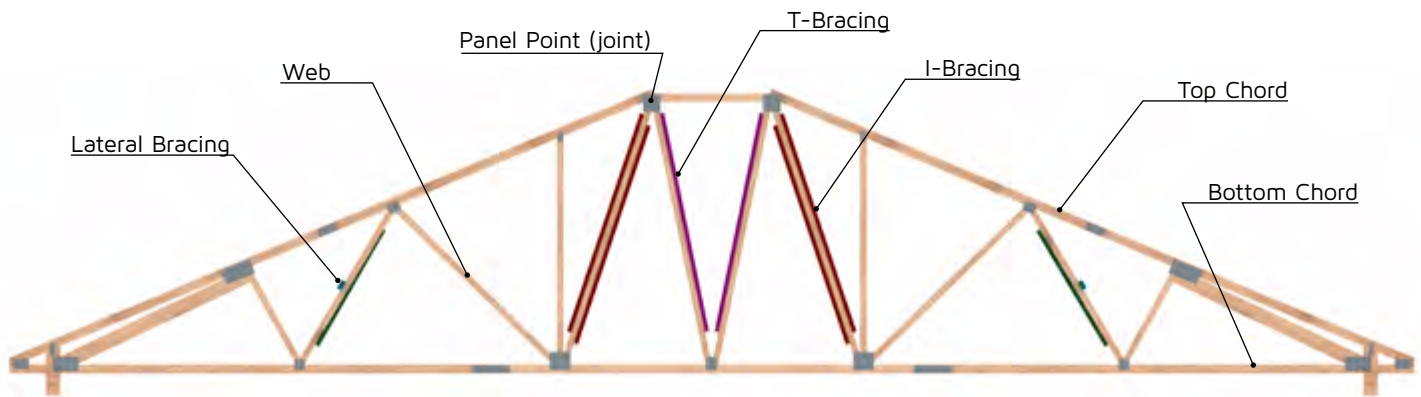
# Blocking to Prevent Web Members from Buckling

To achieve high resistance to axial loading, buckling lengths must be reduced to limit the slenderness ratio of the chords based on this axis. To do so, lateral support must be provided to the chord in question. Lateral bracing is used to reduce the slenderness ratio of the compression web members. The lateral bracing is generally a 2x4 wood chord installed perpendicular to the trusses against the web member to maintain its axis. At least three consecutive trusses with aligned webs are required for lateral bracing.

When the trusses cannot be braced laterally, T-bracing or I-bracing can be used.

## Truss Description

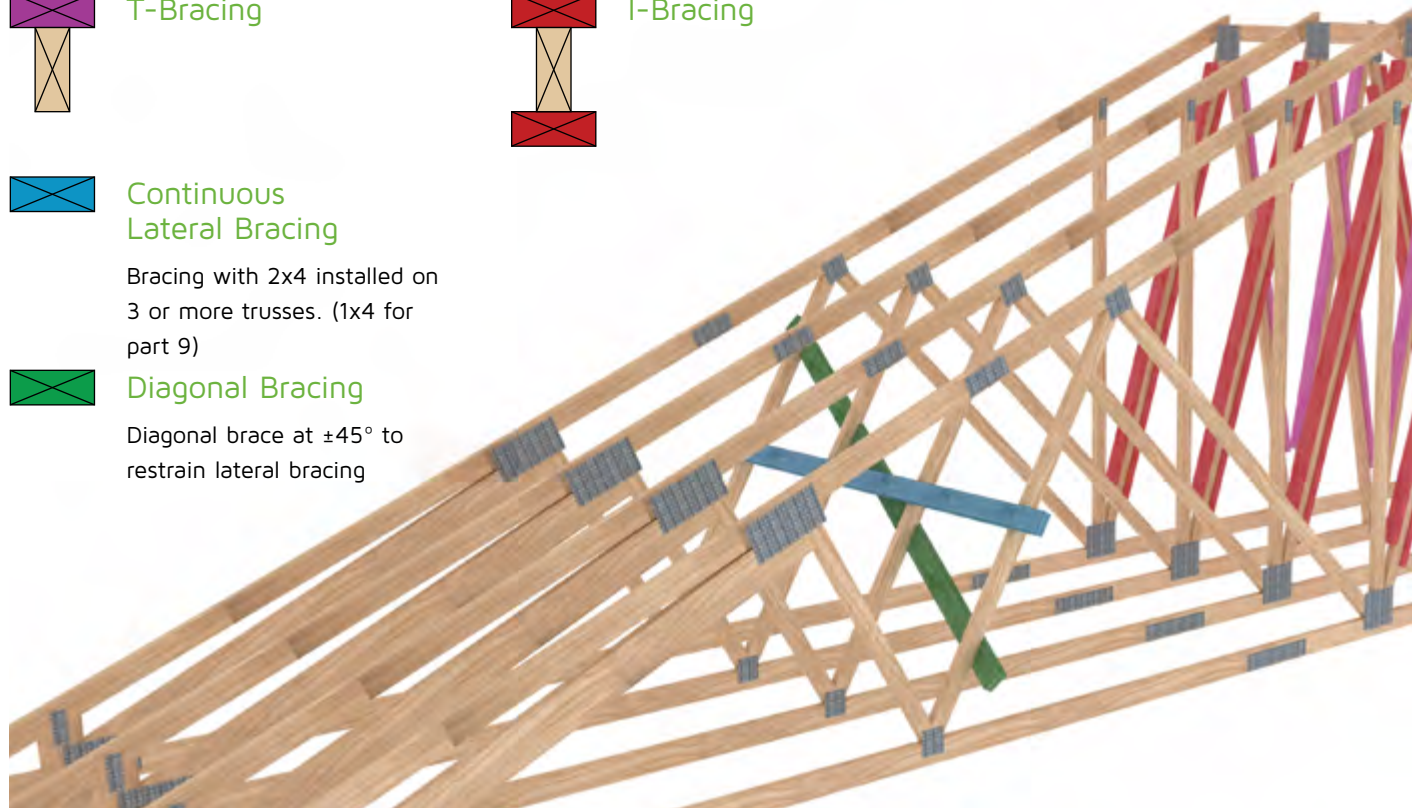
Principal elements of a light wood roof truss



Bracing with 2x4 installed on 3 or more trusses. (1x4 for part 9)

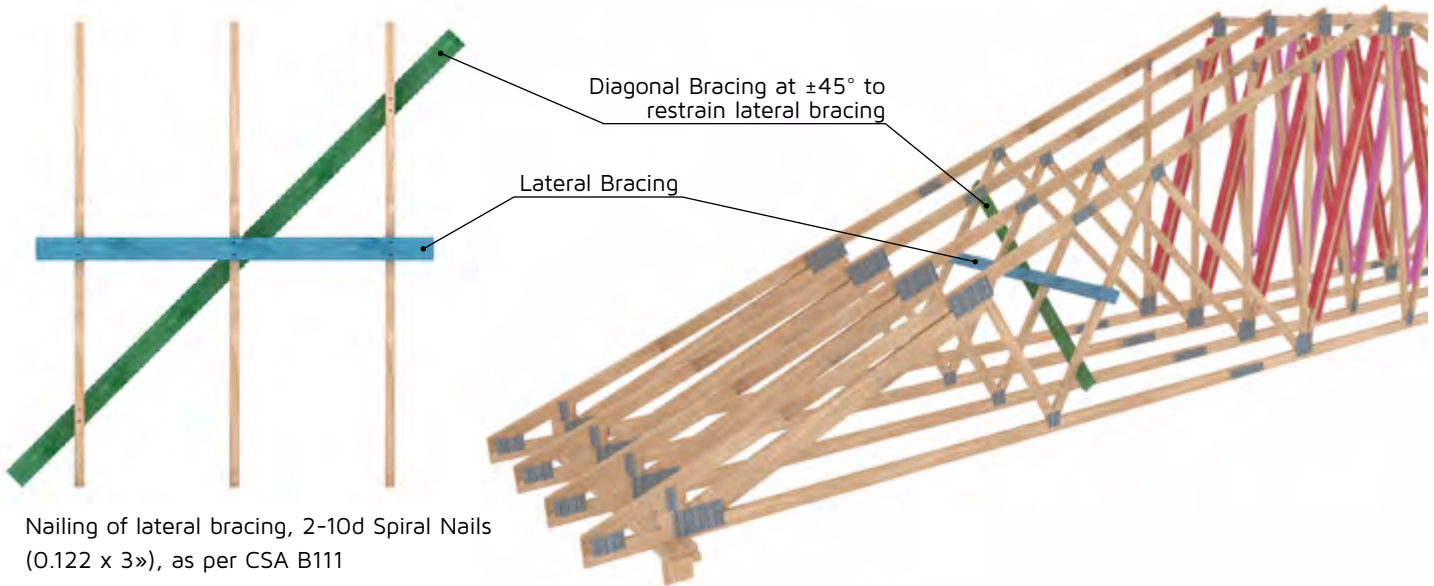


Diagonal brace at  $\pm 45^\circ$  to restrain lateral bracing



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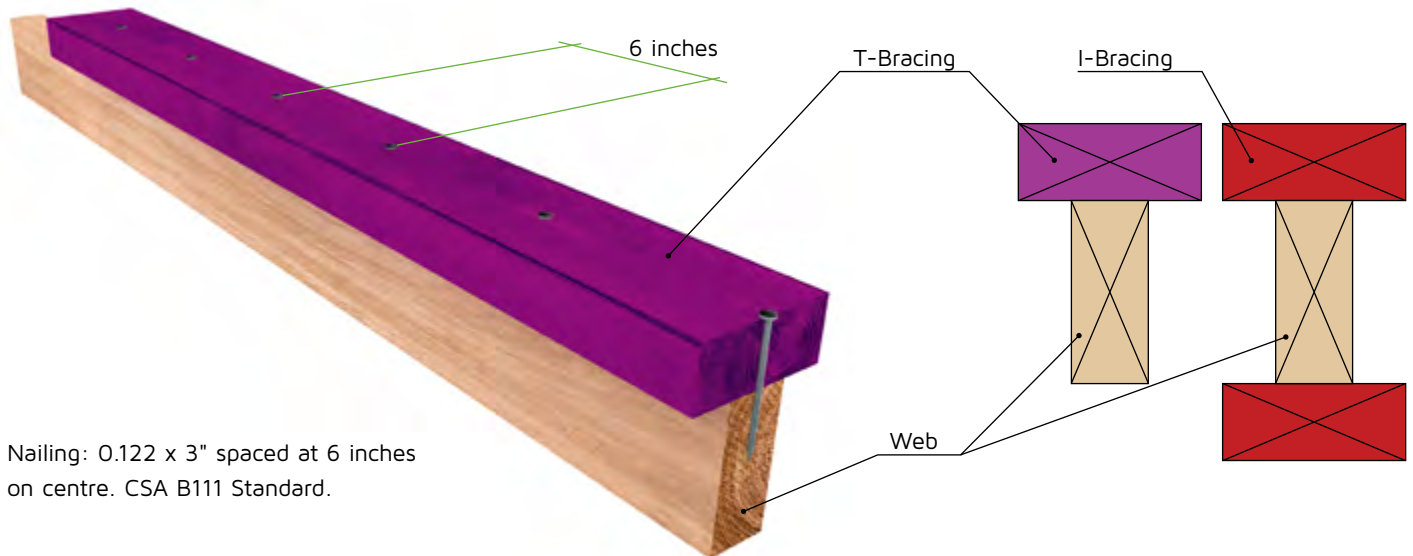
Generally a 2x4 chord over 3 or more trusses that must be blocked with diagonal web members at  $\pm 45^\circ$ . A 2x4 stabilizing diagonal must be installed at  $\pm 45^\circ$  at both ends of the lateral bracing and at intervals of no more than 20 ft. This diagonal is placed on the other side of the web members and is intended to prevent a domino effect.



Nailing of lateral bracing, 2-10d Spiral Nails (0.122 x 3»), as per CSA B111

# T & I Bracing

T and I Bracing shall be SPF No2 or better (in 2x4 or bigger). The reinforcement member shall cover 90 % of the length of the web. Place reinforcements on the thinnest part of the web with one row of 0.122 x 3" nails per ply, nailed at 6 inches centre to centre, starting 3 inches from the end.



Nailing: 0.122 x 3" spaced at 6 inches on centre. CSA B111 Standard.

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