

**NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
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Wood Girder Plates

Code: 2002 Residential Code
Section: R502.6

Date: March 31, 2005

Question:

Can wooden plates (not wedges) be used between wood girders and foundation piers?

Answer:

Yes. There is nothing in the code that prevents the use of wooden plates, but there is also nothing in the code that provides prescriptive design information for them either. The code does not restrict a wood girder from being out of level; so, we have to assume that plates to reduce that condition are a step in the right direction if the plates do not compromise the structural integrity of the pier/girder relationship.

The following guidelines will apply:

1. Plates would have to meet the requirement of Section R506.2 for bearing surface as well as the requirement for treated wood in Section 323.
2. The minimum width of a plate must be the width of the girder that is being supported.
3. The maximum depth of a plate is restricted to 1-1/2" because of the available heights of standard masonry.
4. The plate material must be a minimum compressive strength equal to the wood girder material.
5. Horizontal forces are not resisted at the plate location.

For the purposes of this interpretation "wooden girder plate" is a flat piece of wood with relatively even thickness that is placed between the top of a pier and the bottom edge of a wood girder where it rests on the pier. This may also be referred to as a shim, but obviously cannot be of a wedge shape.

This interpretation is based on an interpretation produced by Bill Murchison of DOI on May 16, 1995 for beam shims as they related to Volume 7.

Keywords:

blocking, foundation