



Location and Shapes of AJS® / BCI® Web Holes

Provisions for the location and shape of web holes in AJS® and BCI® joists are specified in the respective literature as per CCMC's approval. The provision regarding proximity dictates the clear web distance between holes must be equal to or greater than 2 times the greatest dimension of the largest hole. For example, if a 4" diameter circular hole and a 3" x 6" rectangular hole both need to be cut in the same joist, at least 12" of clear web is required between holes.

If the holes are closer than 12", they may still be allowable. Such conditions may be modeled as a single rectangular hole that encompasses both holes in question. Such conditions may be analyzed in BC Calc® sizing software, or AJS® and BCI® literature.

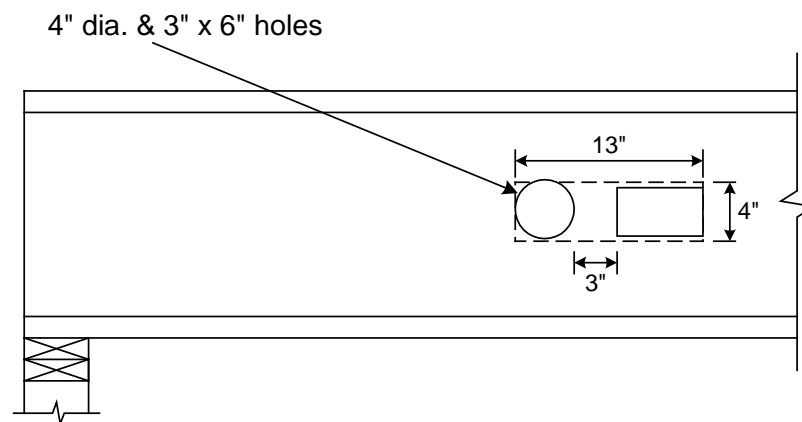


Figure 1: Multiple Web Hole Example

As for the example, two web holes have been cut 3" apart as shown in the example above. Since the clear web distance between hole is less than 12", these holes could not be analyzed separately in BC Calc®. However, BC Calc® can analyze a single 4" x 13" rectangular model hole that encompasses the two actual holes.

When entering this hole in BC Calc®, the distance from support is measured to the middle of the model hole. All other existing hole limitations in BC Calc® apply to model holes, including the 18" maximum length limit. If the model hole is analyzed in BC Calc® and is not over 100% allowable, the actual holes do not need to be repaired or reinforced.

For web holes of shapes other than circular or rectangular (e.g. oval, obround, etc.), a rectangular model hole that encompasses the actual hole may be used to for analysis purposes.