

# Technical Bulletin #20b

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## PREMIER SIPS SPLINES

Premier SIPS uses three types of splines for connecting its structural insulated panels. The three types of splines are the Premier SIPS spline for our Type “S” panel, the I-Joist spline for our Type “I” panel and the double 2x or dimensional lumber spline for our Type “L” panel. Each of these splines provides a minimum width for fastening of 3”. These splines and the corresponding minimum width for fastening have been determined with regard to the OSB manufacturers recommended edge fastening distances and what is practical in actual on site conditions.

OSB manufacturers recommend that the minimum edge fastening distance be between  $\frac{3}{8}$ ” and  $\frac{1}{2}$ ”. When fastening two panels together at a spline joint, the minimum width of spline can be calculated as follows:

- $\frac{1}{2}$ ” edge distance of spline to fastener
- $\frac{3}{8}$ ” edge distance of fastener to OSB
- $\frac{1}{8}$ ” gap in the OSB edges (recommended by OSB mfg.)
- $\frac{3}{8}$ ” edge distance of fastener to OSB
- $\frac{1}{2}$ ” edge distance of spline to fastener

Total =  $1 \frac{7}{8}$ ” minimum width of spline

This minimum width for the spline does not allow any wiggle room for the fasteners deviating from the theoretical edge distances. From a practical standpoint, one must realize that pneumatic nailing guns are used to install the fasteners. The accuracy with which one can hit this theoretical line is suspect. From a practical application stand point, Premier SIPS realizes the limitations inherent in the field and chooses to provide more than just the minimum width for our splines. This is also the reason that Premier SIPS does not endorse the use of a single 2x, or any member that is less than  $2 \frac{1}{2}$ ” wide, as an acceptable spline member.

