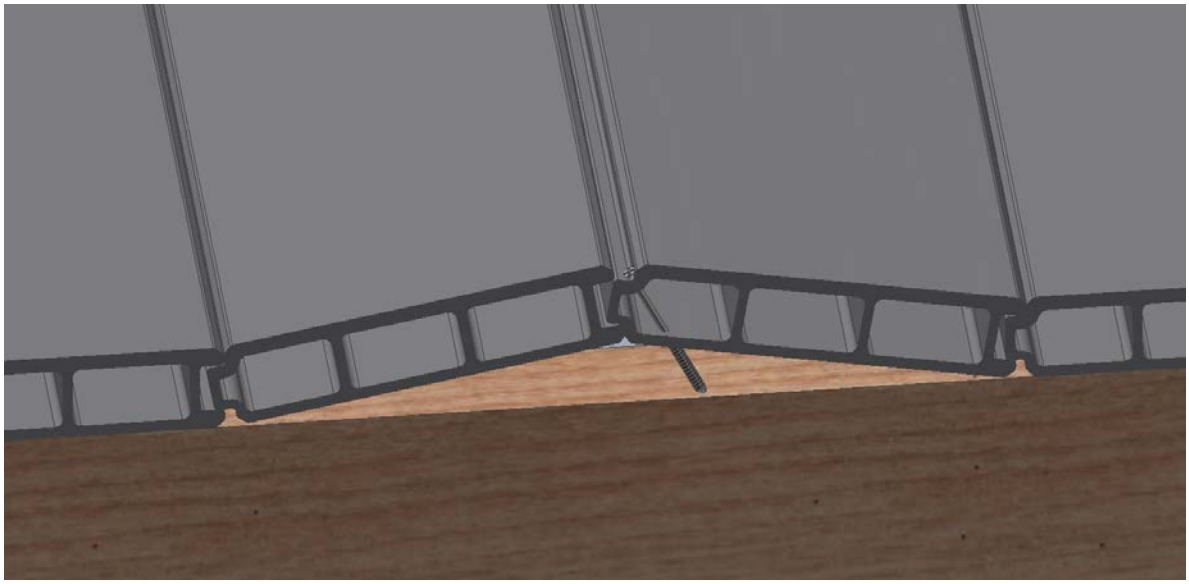
Replacing a Tongue & Groove Deck Board

This instruction shows how to remove and replace a damaged T&G board. The specific damage case is buckling, but these instructions apply equally well whenever a T&G board must be removed and replaced.

For each pair of buckled boards, one will have its tongue-side raised, the other it groove-side. This repair removes the tongue-high board, reattaches the groove-high board, and inserts a new custom-cut tongue & groove board.

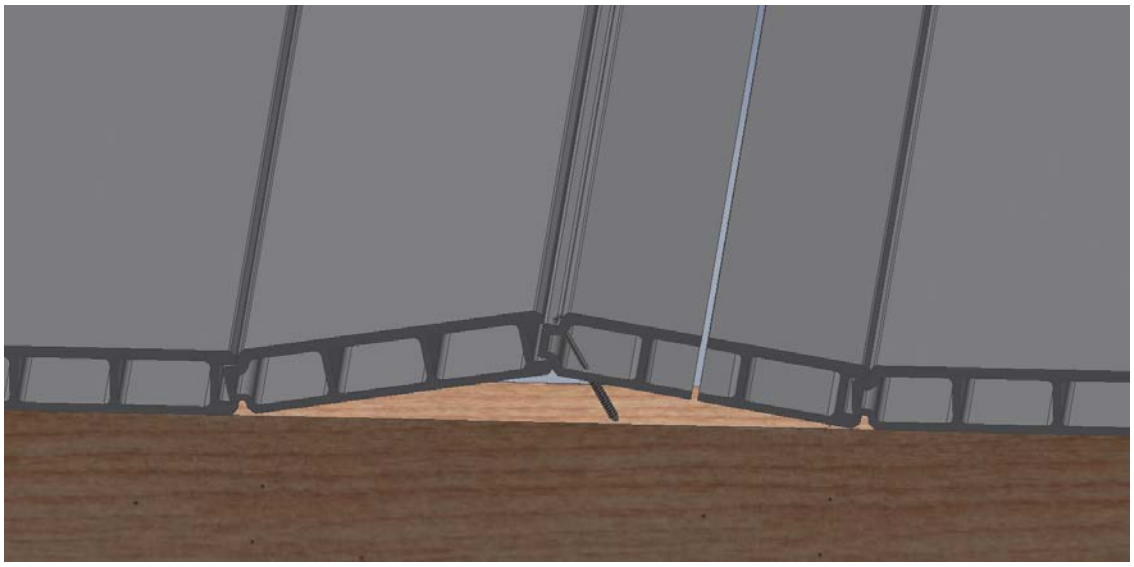
Figure 1 shows an example of a pair of buckled T&G boards.

Figure 1 - Buckled Tongue & Groove Boards



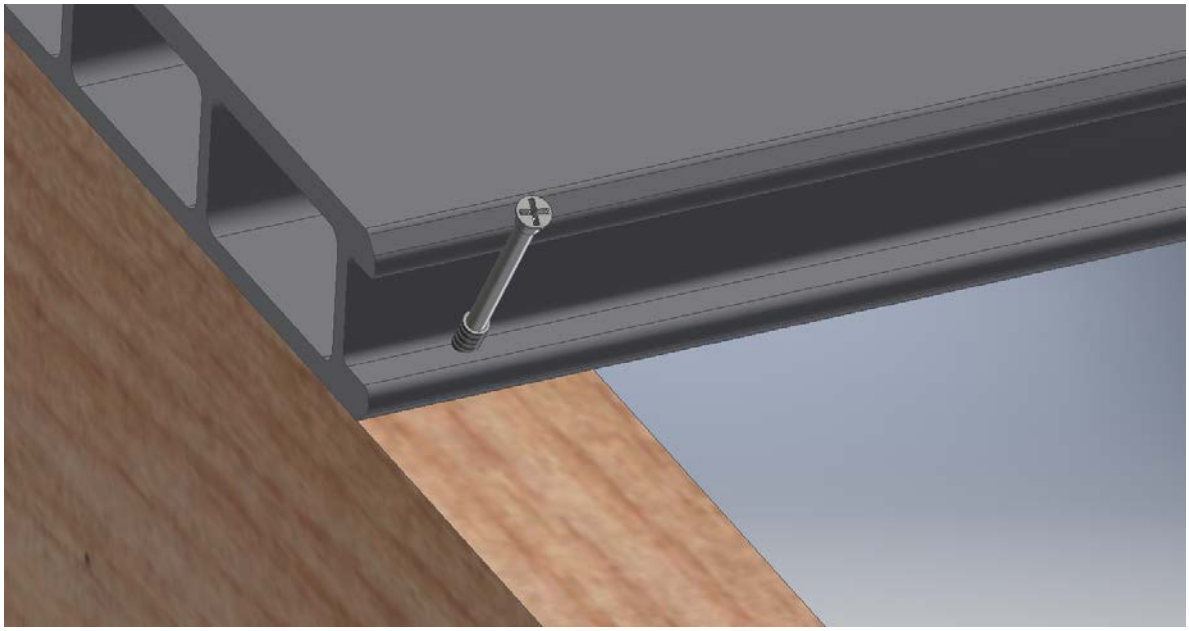
1. Remove the tongue-high board by first ripping it with a circular saw. Do not cut near any of the fasteners. Set the saw blade depth to slightly more than the board thickness, or about 1 ½". (See Figure 2.) Take care to keep the saw under control as the board will fall away from the saw as you complete this cut. Remove this board and all fasteners holding it to the joist below. (If the groove-high board needs replacing, remove it and all its fasteners now. Re-fasten this board's replacement as instructed in the following step.)

Figure 2 - Removing old board



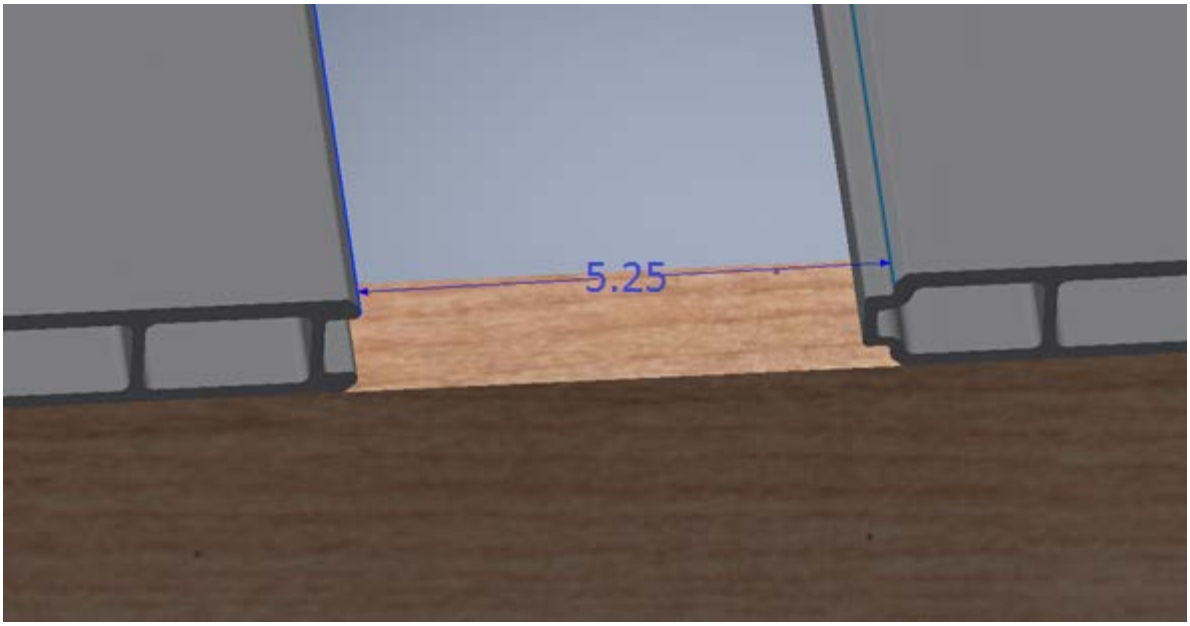
2. Re-attach the groove-high board by driving a 1" to 1 ½" long ring-shank nail through the lower surface of the groove and into each joist. (See Figure 3.) This nail will be driven at an angle, so take care that the board is not "cinched-up" tightly to its neighbor while driving the nails. Holding a 1/32" gap between mating board shoulders (credit card thickness) during re-fastening will prevent "cinching".

Figure 3 - Ring shank nail through lower groove surface



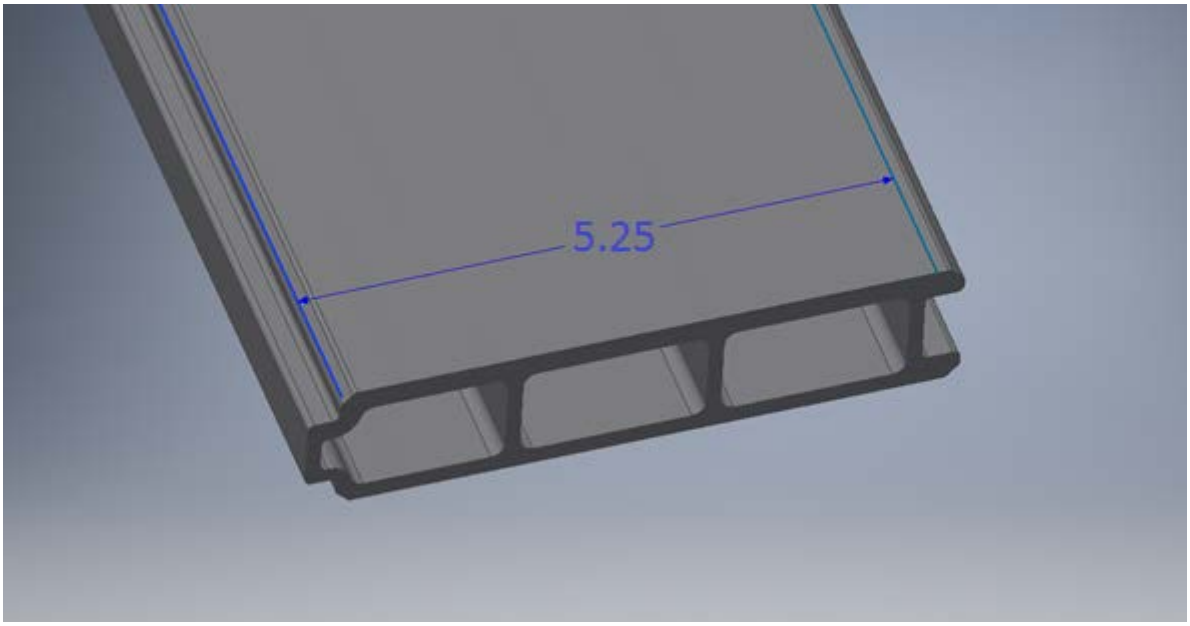
3. Measure the distance between the groove-nose of the re-attached board and the shoulder of the facing board, 5¼" in this case (Figure 4). Take this same measurement at several points. Note the largest measurement. (If the boards were squared when originally installed all these measurements should be nearly the same.)

Figure 4 - Measuring Nose-to-Shoulder distance (5¼")



4. Rip a new T&G board using the largest measurement noted in Step #3. Measure from the shoulder above the tongue to the nose on the groove side. See Figure 5.

Figure 5 - Transferring Nose-to-Shoulder distance to new board



5. In order for the board to fit easily into place, rip an additional ½" piece from the bottom, groove-side. You also need to remove any remnants of the groove's vertical wall. See Figures 6 and 7.

Figure 6 - Ripping to width

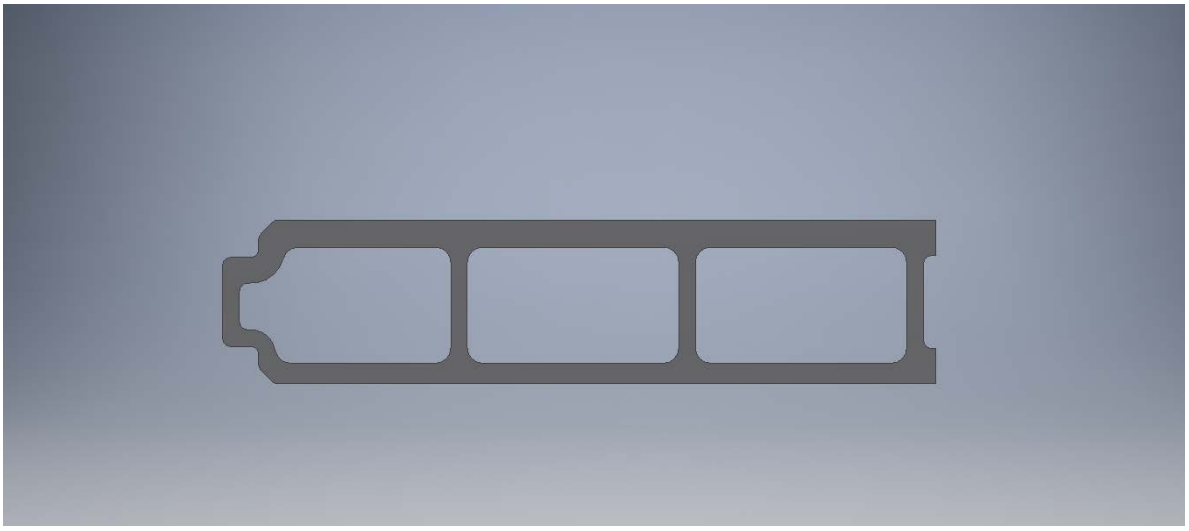
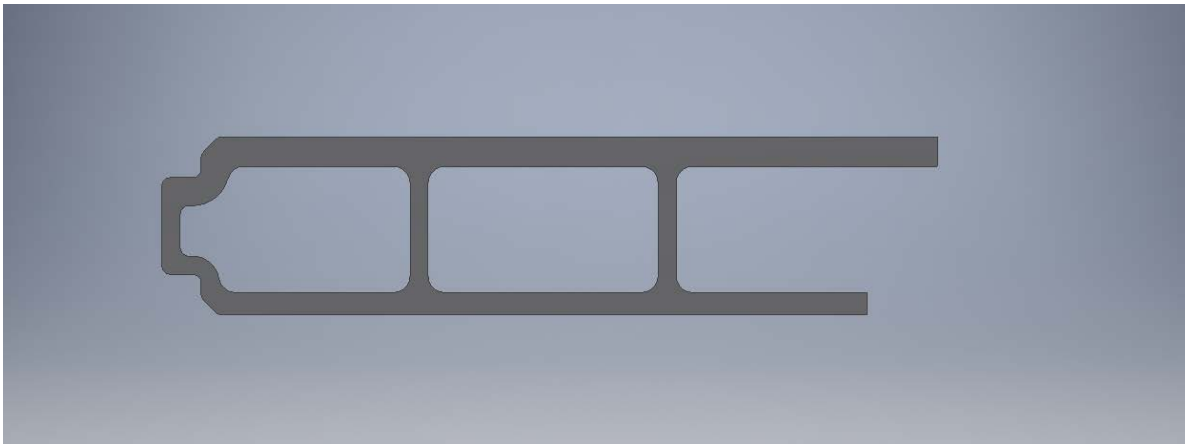


Figure 7 - After removing 1/2" from bottom, and vertical wall



6. Test fit the replacement board, inserting the tongue-side first. Check the joint where the still-square top surface meets the surface of the neighboring, tongue-side, board. You will need to shape or rout the square edge to approximately 45 degrees to match the similar opposite angle of this neighboring board. Ease the lower edge as necessary for the board to fit flush with its neighbor. See Figures 8 and 9.

Figure 8 - Test fitting the board

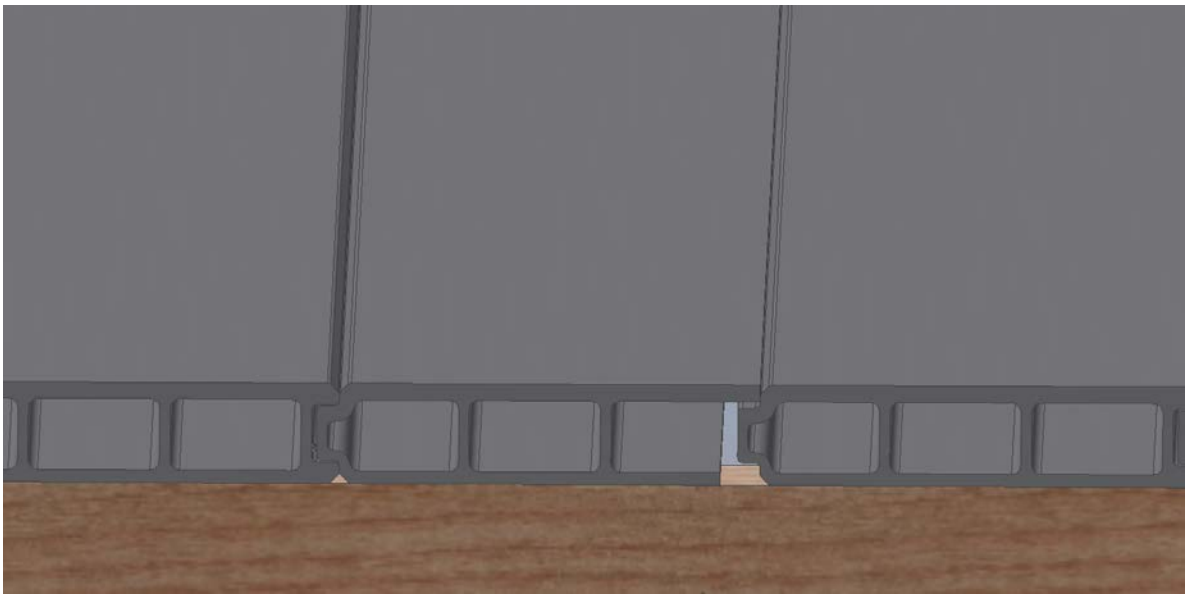
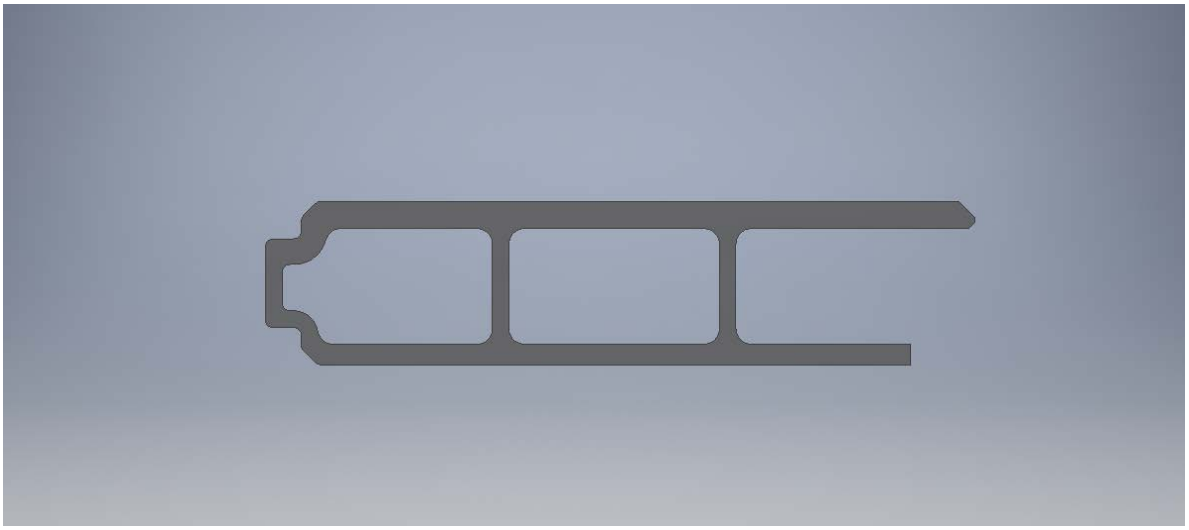


Figure 9 - Chamfered top edge and eased lower edge



7. Before final placement of the board, mark the joist centers on the tongue-side neighboring board for reference when nailing.. When the dressed board is fitted satisfactorily, pre-drill a 3/32" hole through the top surface at each joist location, approximately *Yi'* in from the chamfered edge. Drive 8d, 2 *Yi'* finish nails (stainless steel or appropriately coated) through these holes, using a nail set to place the nail head just below the board's surface. See Figure 10.