Procedure:

1) To begin find the center of the kneebrace. Mark off the rise of 3″ (76 mm), and run of 20″ (508 mm) on either side of the center-line for a 36″ (914 mm) kneebrace (note: a 36″ kneebrace hypotenuse is 50⅞″ or 1293 mm long). For a 48″ kneebrace, mark off a rise of 4″ (102 mm) and a run of 29″ (736 mm) on either side of the centerline.

2) Next find the center of the drawn (hypotenuse) line between the rise and run.

3) Divide the original rise (3″) by 4 (quarter point) and use this new calculation for the rise of the new hypotenuse line(s). For example 3″ ÷ 4 = ¾″.

4) Continue to find the center points of new lines and use the previous line rise (divided by 4) as the new rise. For example, for a 36″ kneebrace, it would be 3″, ¾″, ³⁄₁₆″, ³⁄₆₄″ (76, 19, 4.5, 1 mm) and so on; for a 48″ kneebrace, it would be 4″, 1″, ¼″, ¹⁄₁₆″ (102, 25 , 6, 1.5 mm).

5) The series of quarter-point lines will produce an arc. This arc can then be cut with a chainsaw or bandsaw. Finish with a curved base planer to produce the intended curve.

4.8 Hammer Girts

There are two hammer girts per frame for a total of six girts. The length between the principal and hammer post center waypoints is 5′ (1524 mm). After adding another 30″ (762 mm) of tenons, the overall length of the 6″ x 10″ (152 x 254 mm) hammer girt should be 7′6″ (2286 mm).

Figure 4-12
Hammer Girt